

# Avoiding dangerous climate change: Are the carbon markets up to the job?

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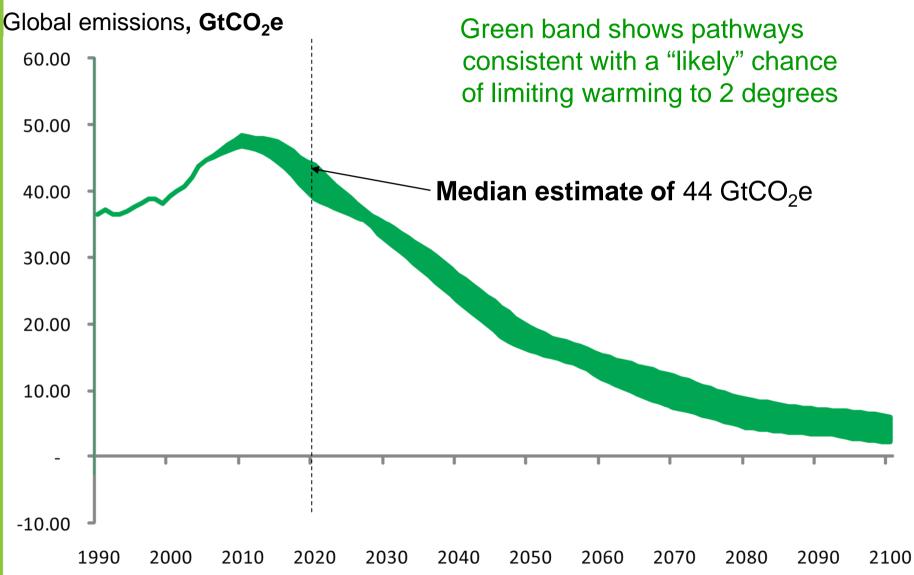


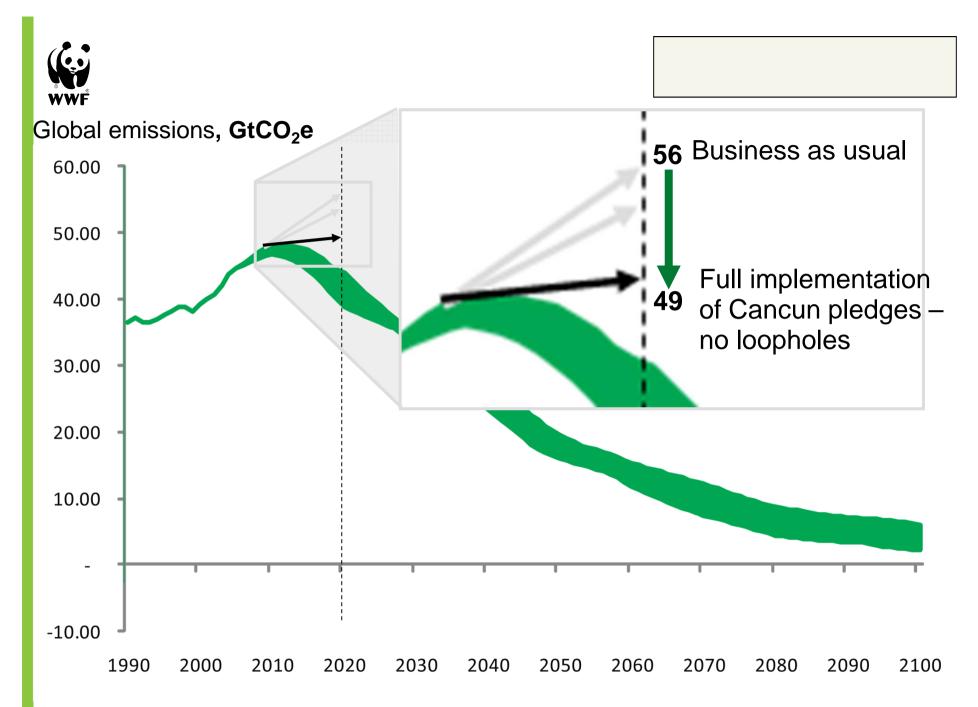
#### A quick overview

- What do we need to do to avoiding dangerous climate change?
- The global carbon markets so far and ideas for evolving them
- A (very) quick look at the EU Emissions Trading Scheme
- The role of the carbon market in driving domestic action and investment
- Some conclusions



# What are we aiming for?







#### The gigatonne gap – and how to close it

Main problem is weak industrialised country targets (cf IPCC 25-40% range).

With loopholes, rich country emissions could *increase* – before offsets come in!

Close the gap with stronger targets, new pledges, new sectors, new money...

#### Carbon market issues:

- With weak industrialised country targets, carbon market is stillborn
- Avoid double counting of offset credits (up to 1.3 gigatonnes)
- Significant NON-OFFSET action in developing countries (eg REDD)
- New, additional finance is key bunkers, financial transaction taxes

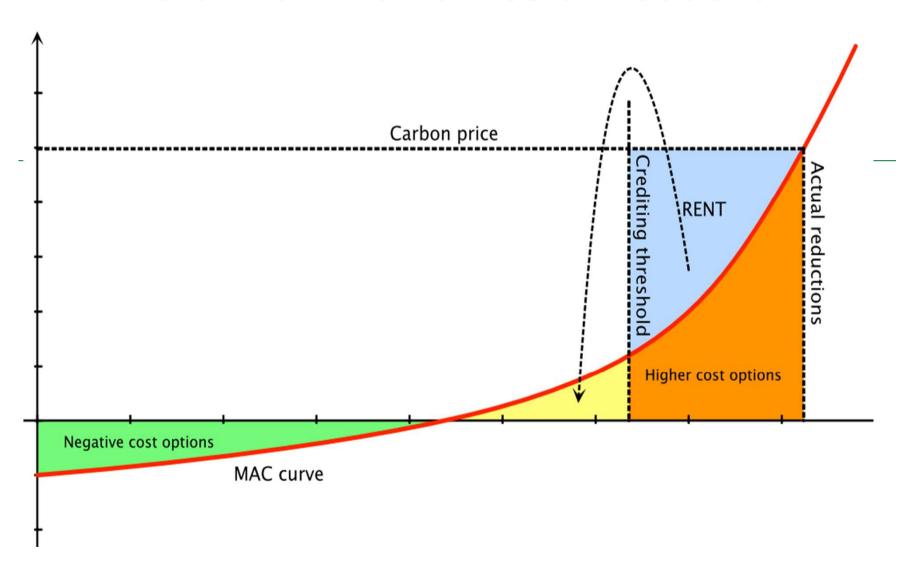


#### **Beyond the Clean Development Mechanism**

- Even in theory CDM is only zero sum game for the climate. In practice...
- Oko-Institut report for WWF 20% of credits (and 40% of projects)
   likely to be non-additional
- Market domination China had 72% of CDM market in 2009
- Market historically dominated by industrial gases massive windfalls, perverse incentives to produce more GHG
- Market moving slowly towards energy efficiency and renewables but issues
  of double counting and low hanging fruit are becoming increasingly prominent

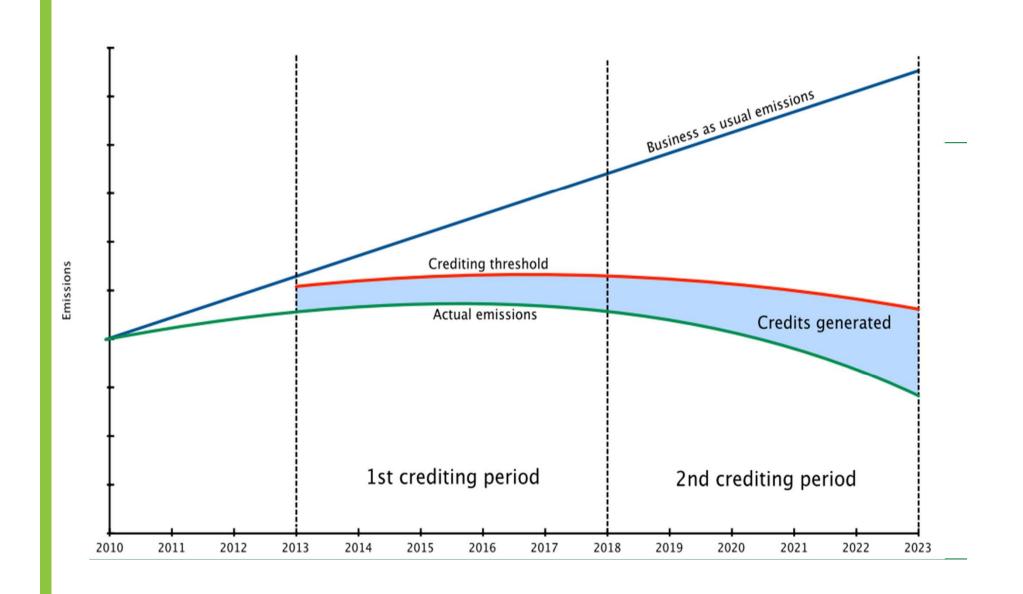


## Who owns which emission reduction?





# Towards a sectoral approach?





#### New approaches – a word of caution

- Sectoral approaches (trading, crediting) could offer climate benefits
- But severe risk of weak baselines, or more hot air:
  - lack of good data
  - very challenging to negotiate equity, international scrutiny etc
  - inevitable upwards pressure, risk of gaming BAU
  - everyone wants to be a seller!
- Sometimes old-fashioned regulation works eg HFCs, efficiency standards
- Linking of cap and trade schemes similar inflationary pressures



#### The global carbon market – on its knees?

- Weak industrialised targets means low demand for credits, low price, low financial flows for mitigation
- The death of the US Climate Bill is a body blow to the EU's vision of a global carbon market. Where is its new plan B?
- According to European Commission (2009), current Annex 1 targets require an additional Euro 200 billion in public money to compensate
- The bad news there is little political recognition of this conundrum



#### The EU ETS – cap or trap?

- First phase over-allocation, free allocation, huge windfall profits
- Second phase marginal improvements, but weak caps and recession has created massive surplus
- Third phase stockpile of 1.8 billion permits and CDM credits. Tighten the cap but also drain the swamp!



A mistake to put the power sector into the same scheme as manufacturing industry?



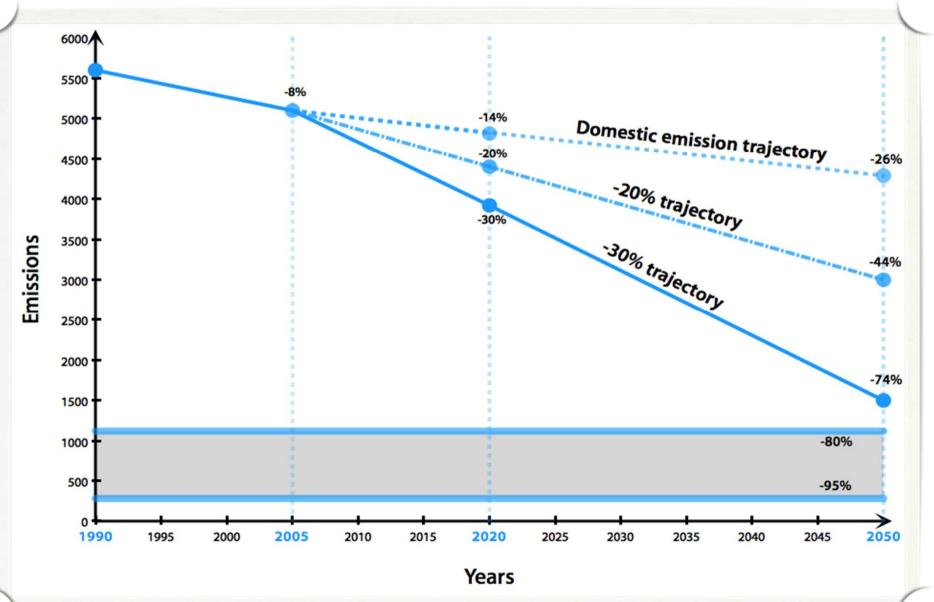


#### Getting the EU to move to (at least) 30% is key

- In 2009, EU emissions were 17.3% below 1990 levels. The current 20% target is business as usual or worse. Surplus allowances and offsets mean domestic emissions could rise substantially
- Moving to 30% would cost 0.2-0.3% of GDP (European Commission), or even lead to substantial GDP gains (Ecofys)
- Savings to EU of Euros 14bn per year from avoided oil and gas costs
- Governments are foregoing revenue of Euros 70bn from 2013-2020
- Binding efficiency target and policies, and overhaul of EU ETS, are key



# Europe's "back-loaded" approach





#### Turning the focus back to domestic delivery

- Cancun agreement introduced commitment to "low emission development strategies". Vague – but potentially important
- Many developing countries are already well-advanced Mexico, South Africa
- The UK Climate Change Act a model for developed countries:
  - at least 80% cuts by 2050
  - DOMESTIC 60% reductions by 2030 "as a bare minimum"
- Europe is also looking increasingly at the transition rather than the market climate and energy roadmaps to 2050



"Any feasible path to a 80% reduction by 2050 will require the <u>almost total decarbonisation</u> of electricity generation by 2030"

"There is a strong case for <u>buttressing the carbon price</u> lever by establishing a clear and publicly stated expectation that <u>coal-fired power stations will not be</u> able to generate unabated beyond the early 2020s"

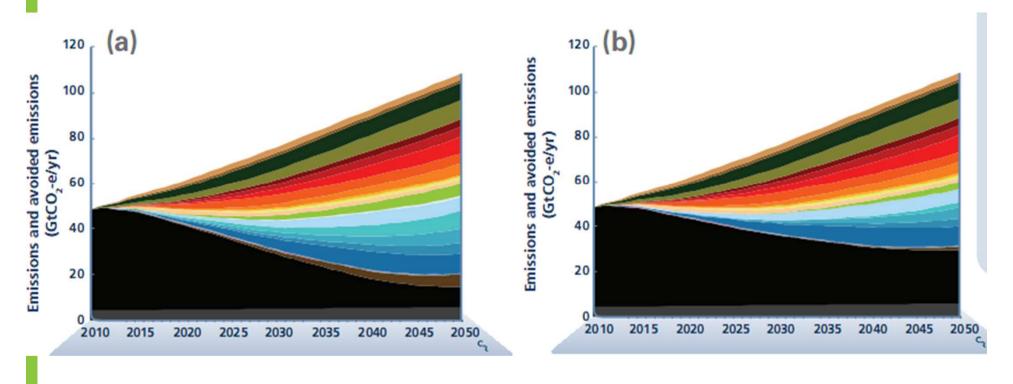


#### The UK power sector – a case study

- Only three years ago, a new generation of unabated coal stations was being planned in the UK. Kingsnorth led the way...
- Debate now is how, and how fast, to decarbonise the energy system. 2030? Renewables? Nuclear? CCS? Demand reduction? Electric vehicles and heat?
- The ETS is notable by its absence! Instead plans for carbon floor price, emissions performance standard, feed-in tariffs, Green Investment Bank...
- Is this "double regulation" that fails to reduce EU emissions? Wrong question!



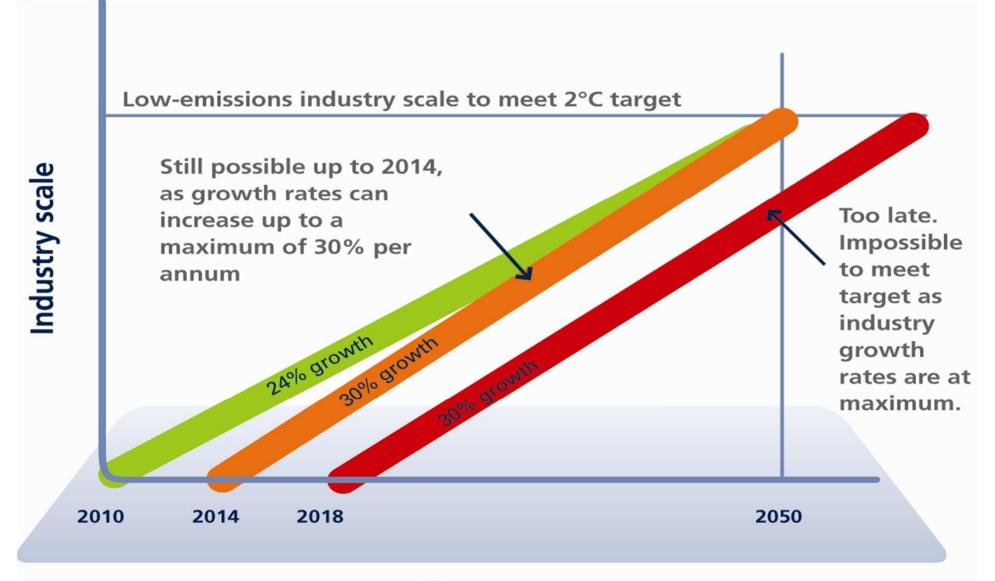
# We need simultaneous development of solution wedges



Simultaneous (L) vs. sequential (R) technological development has a heavy impact on modeled mitigation success



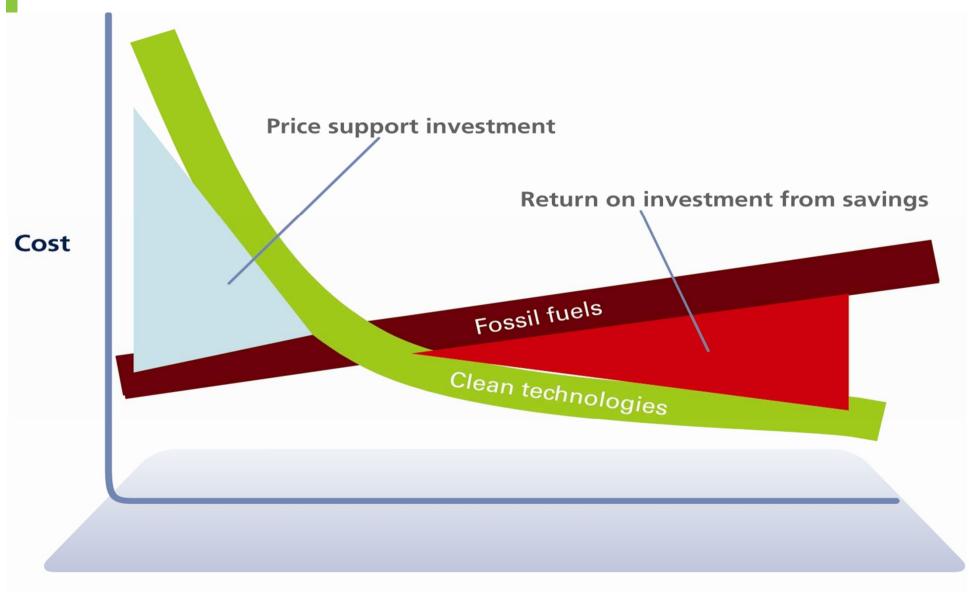
#### We need to start now!



Time



## Cleaner, cheaper – but when?



**Time** 



#### A clean energy future

- A safe climate future based on 100% renewable energy is achievable and affordable
- ◆ A carbon price will help but a low marginal price now will lead to high carbon lock-in and bad decisions. Carbon markets can be a (small?) part of the solution
- The real solutions lie in complex issues green infrastructure, technology, building retrofits, behaviour change, land use and governance, financing
- The big challenge is mobilising CAPITAL £450 billion in UK alone by 2025.
   Global investment in clean energy Euros 1-3 trillion per year



# The Energy Report 100% Renewable Energy by 2050

#### **A VISION**

A world powered by 100% renewable, sustainable energy by mid-century

#### **A SCENARIO**

Extensive electrification of transport; enhanced energy conservation; smart grids; sustainable energy for all

#### **CHALLENGES**

Conserving energy & reducing demand; electrification; equity; investment; land/water/sea-use implications; governance; lifestyle choices - behaviour changes & public attitudes; innovation and R&D



In all of our hands - policymakers, investors, corporate leaders, communities and individuals.



Stop fossil fuel pollution; save money; address climate change; improve health; no nuclear risks; new jobs; innovation; protect nature