

Shell Climate Change

Implementing the Kyoto Protocol



The Role of Business

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Three fundamental questions. . . .

1. What can a legislative approach offer towards meeting national Kyoto greenhouse gas targets?
2. What sort of approach can work for industry and deliver the environmental result that the country wants?
3. Why should business play an active role in shaping this policy?



Emissions Reduction Roundabout

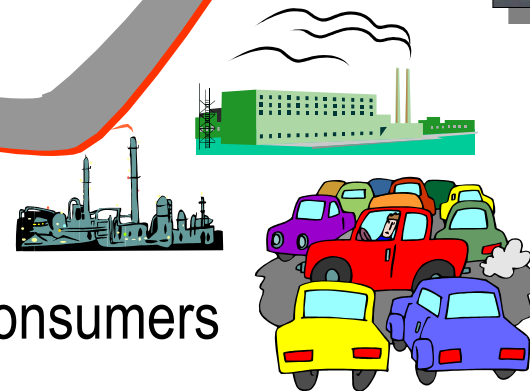
Assess the results?
Is further action
needed?



- Indirect Approaches
- Voluntary framework
 - Taxes
 - Efficiency targets etc. . .



Action by business and consumers

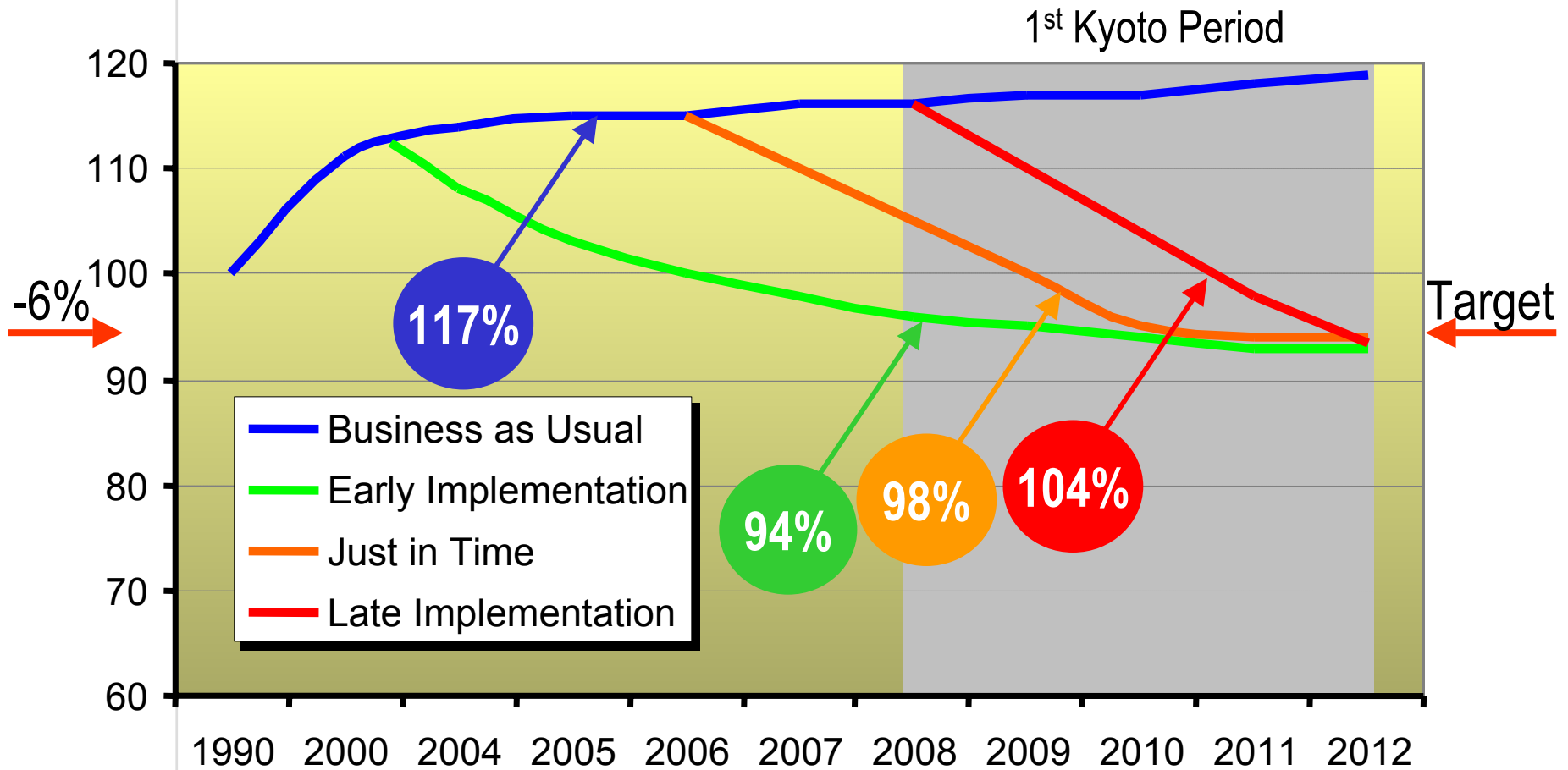


Why are indirect approaches problematic?

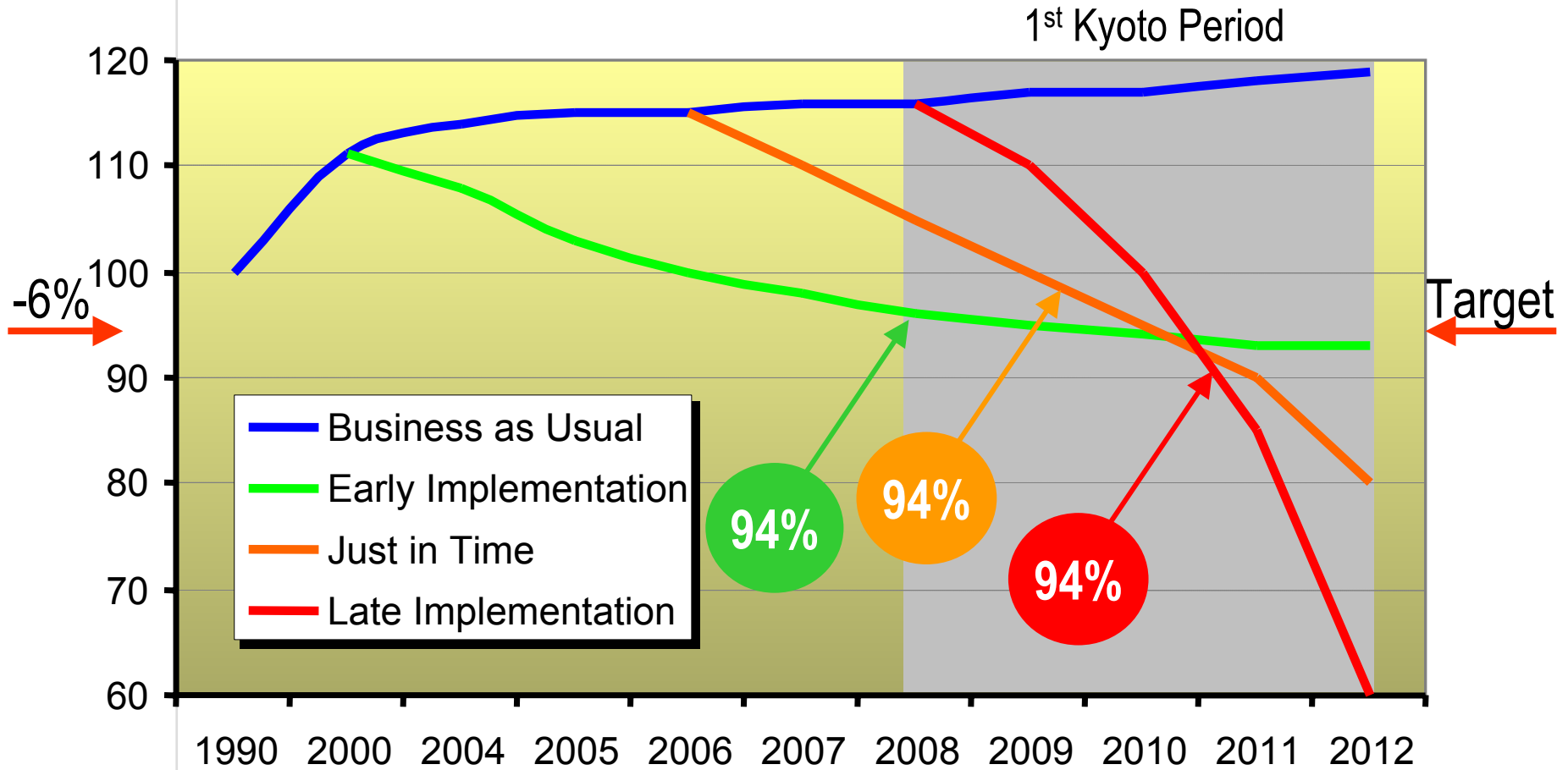
Type of Approach	Specific target for Industry	Other Factors influencing the total greenhouse gas emissions
Reduce GHG Emissions	= GHG Emissions	
Reduce GHG Intensity	= Emissions per tonne	X Number of units
Improve Operating Efficiency	= Plant Energy Efficiency	X Best process energy use per unit X Number of units
Become best industry performer	= Comparative Efficiency Standing	X Industry Average plant Efficiency X Best process energy use per unit X Number of units
General Tax on energy use	None	Cost of crude oil, refiners margin, consumer attitudes, vehicle preferences, disposable income, public transport options etc.



Three Paths to Kyoto Compliance??

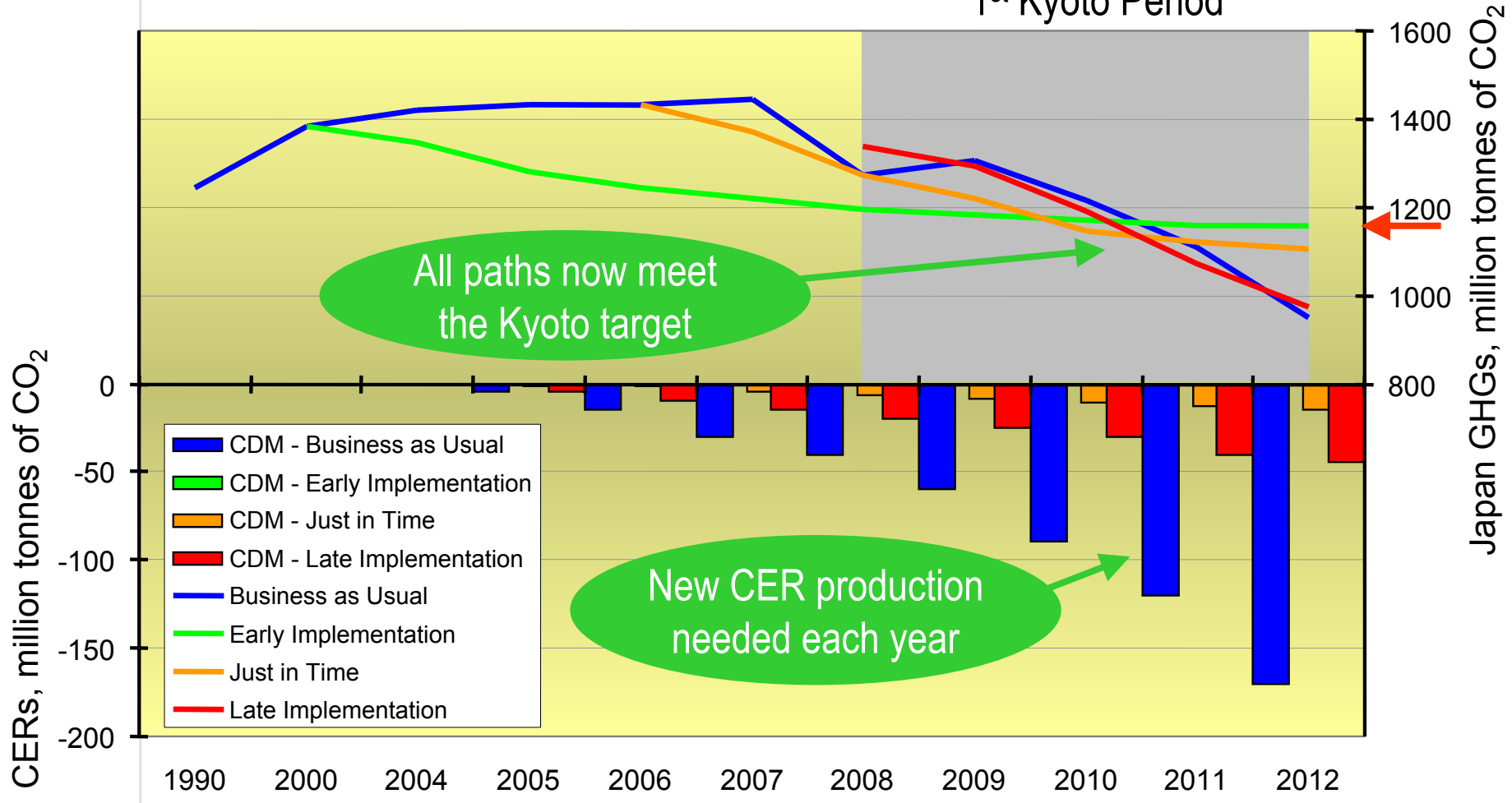


The Reality of Meeting Kyoto!!



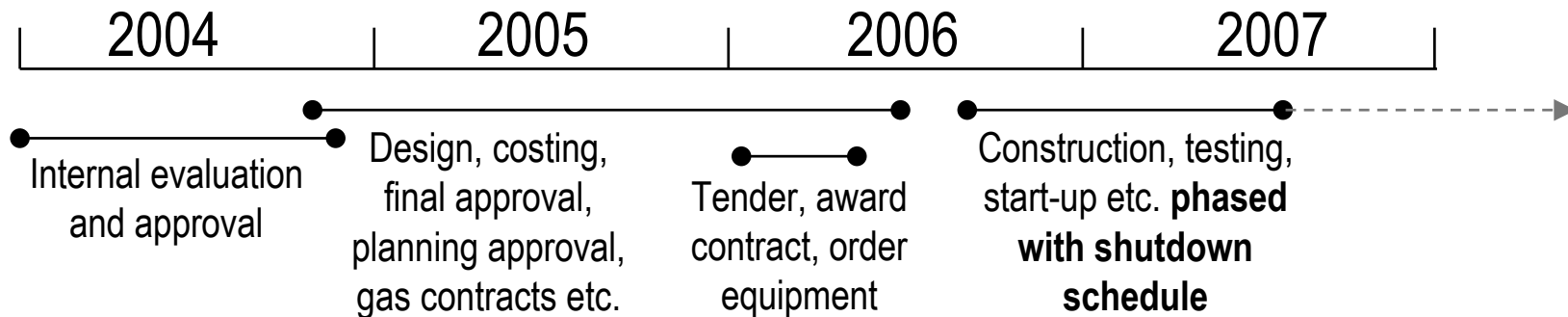
Utilising CDM to help meet the target

1st Kyoto Period

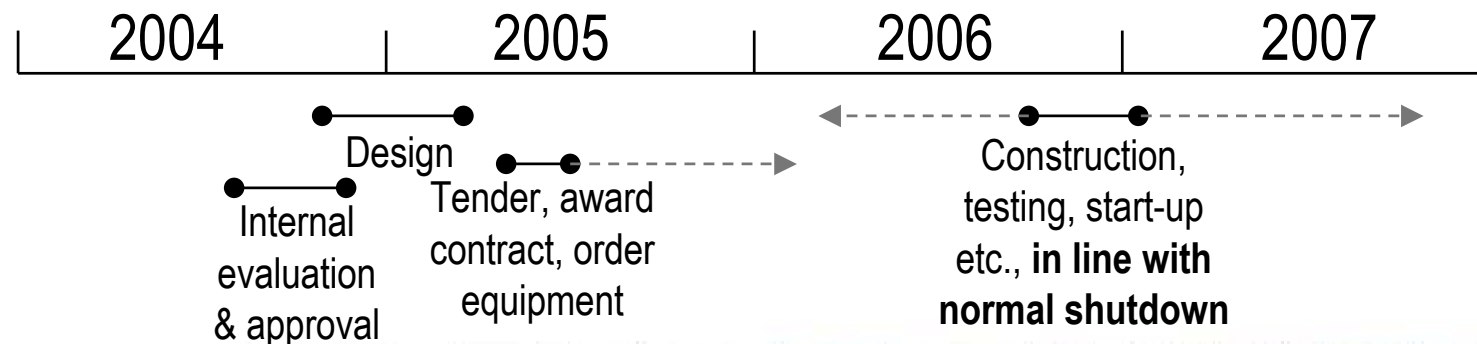


Project Timelines

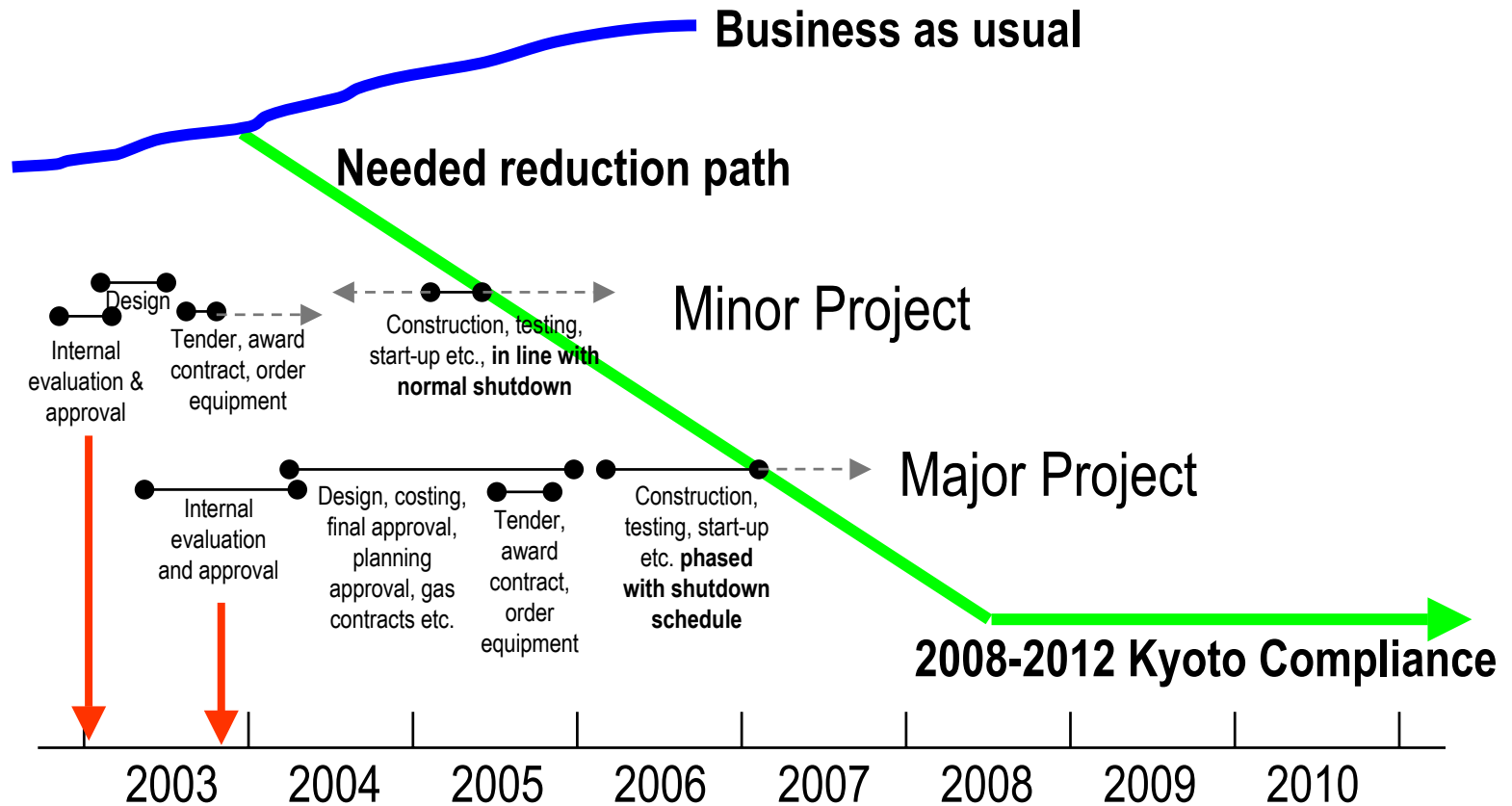
Major Project: Oil to Gas Switch in a large refinery 10 % emissions saving at the site



Minor Project: Furnace air-preheater 1-2 % emissions saving at the site

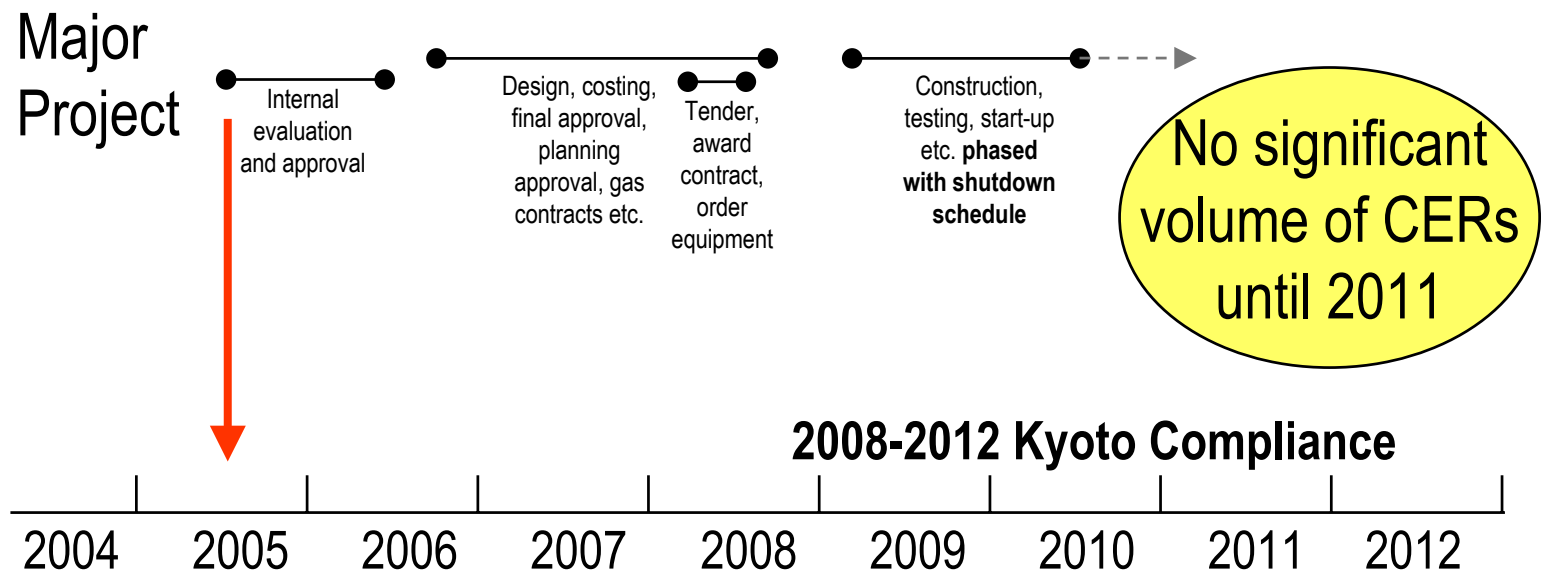


The impact of project timing



What about CDM projects??

Big projects in developing countries can take even longer to implement than those at home. The timeline can easily stretch to 5+ years.



If CERs are not available in large volume until 2011, we need even more projects to offset domestic 2008-2012 emissions.



Assessing the right projects

- The **ONLY** way emissions are reduced are from investment & implementation of new technologies.
- Companies **MUST** make these investment decisions efficiently so that the total cost of compliance for the economy is kept to a minimum.
- Companies need a financial measure to guide the decision making process.
- Significant project activity needs to start now.



What does a market approach have to offer ?

- Achieves clear environmental targets with certainty
- Captures lowest marginal cost of abatement
- Enables efficient calculation of investment decisions, i.e. should we build or buy
- Enables the finance & development of new technologies
- Enables us to manage risk, this is our fiduciary responsibility to shareholders
- Low transaction costs: we minimize costs of measurement, verification and administration

Information = decision making = good business



The CO₂ Commodity

- Typical commodity markets are underpinned by a real physical substance, such as oil, wheat or gold.
 - ✓ The market knows much about the supply of and demand for this substance, both now and for many years into the future.
 - ✓ As a result, participants in the market have the confidence to trade forward, often buying and selling years ahead.
 - ✓ Future trading in such markets supports long term investment decisions.
- “Emitting CO₂” is not a physical commodity. It doesn’t exist.
 - ✓ It must be created through legislation by establishing a “scarcity”.
 - ✓ The enactment of such legislation shapes the commodity and the resulting market.



Why should business have a role?

Reminder:

- ✓ The CO₂ commodity can only be created by legislation.
- ✓ The enactment of such legislation shapes the commodity and the resulting market.

The participation of business in this process means:

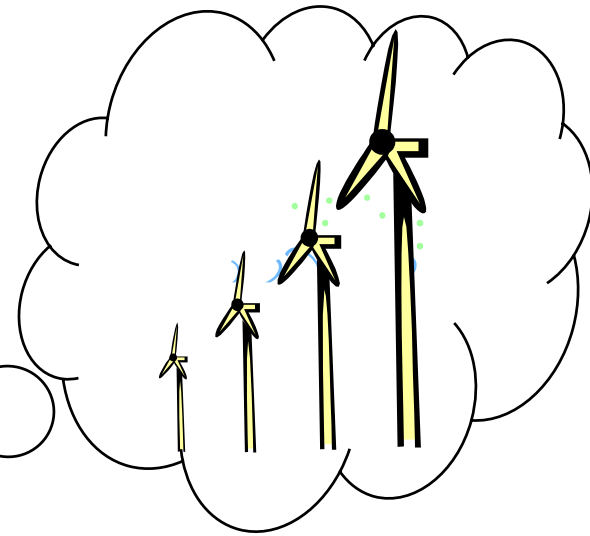
- ✓ That they can influence the rules of the market. . .
- . . . and therefore
- ✓ Get the type of market they need to steer investment decisions.



This is the sort of market we want

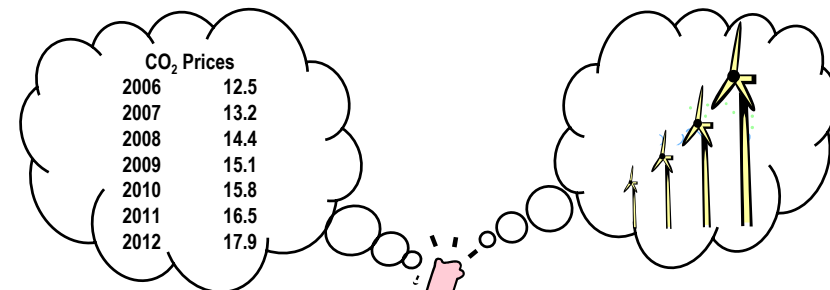
CO₂ Prices

2006	12.5
2007	13.2
2008	14.4
2009	15.1
2010	15.8
2011	16.5
2012	17.9



Which is characterised by . . .

- Policy stability which gives the market confidence in the value of the “commodity”.
- Transparent and simple allocation of allowances for many years ahead.
- Widely inclusive participation.



Which gives rise to -

- A real and liquid forward market
- A robust forward price curve
- Real investment and emission reduction



change

Shell Advocacy on Trading in Europe

Group position on the EU-ETS:

- Supports the proposal from the commission;
- Seeks mandatory industry participation across the EU;
- Seeks absolute caps;
- Proposes “up-front” allowance distribution out to 2012;
- Opposes auctioning of allowances;
- Believes the proposal will allow industry to reduce emissions at lowest cost.



The Group published its position as an “advertorial” in “The Parliament Magazine” throughout June 2002 (3 issues).



Quick reminder – The EU Market Structure

- All major emitters in the EU
 - ✓ Power generators
 - ✓ Oil refiners
 - ✓ Pulp and paper
 - ✓ Mineral industries
 - ✓ Cement
 - ✓ Chemical industry (from 2008)
 - ✓ Other combustion >20 MW
- 2000+ facilities just in the United Kingdom
- Mandatory participation and absolute caps
- 2005-2007 then 2008-2012 trading periods
- CO₂ now, all gases from 2008
- JI and CDM linkages (proposed)
- Possibility of including transport from 2008 (study)



Strategy to meet the Kyoto target

- Planning needs to start now to make significant reductions in emissions at home by 2008 or to implement enough CDM projects in good time.
- Industry needs early clarity on specific targets to spearhead the project development cycle.
- A legislated market trading structure can give business the financial guidance it needs for project implementation.

**Delay is costly for business and may result in
Japan missing its target.**



The Challenge and Benefits For Industry

Challenge:

- Working with government to convert a growing melange of regional systems, national taxes and voluntary actions into a single coherent trading system.

Benefits:

- Delivers the required environmental result.
- Stable future investment environment.
- Equitable treatment within the economy.
- Lowest cost solution.

