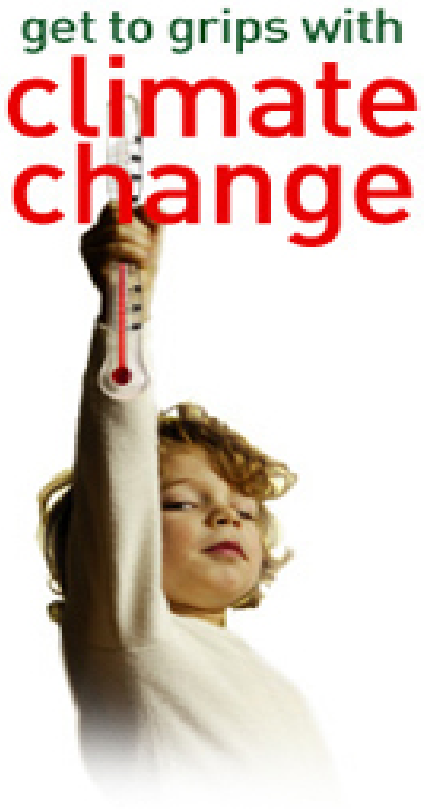
European climate and energy policy creating opportunities for European companies



Gent, 22 October 2008

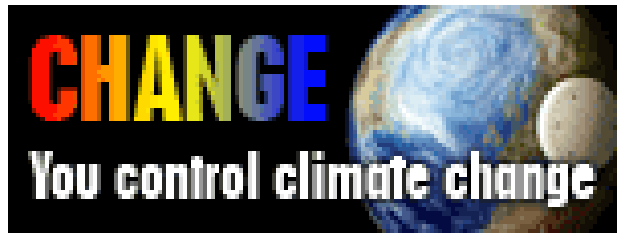
Lynn Sheppard

European Commission

DG ENV, Unit C1: 'Climate strategy, international negotiation and monitoring of EU action'

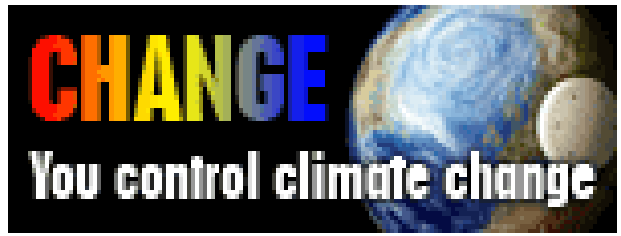
Outline

- What is European climate change and energy policy?
- Why cooperate with China?
- What are we doing?
- Opportunities for companies



Outline

- What is European climate change and energy policy?



1. **Growing concern about security and continuity of oil and gas supplies**; rising energy prices, despite the increased efficiency resulting from EU market liberalisation

2. **Climate change**; IPCC 4AR findings, increased expectations of citizens

3. **EU competitiveness policy**: need for innovative industrial development and leadership

4. **3 pillars of EU energy policy: sustainability, security of supply, competitiveness**

Climate Action
Energy for a Changing World

Targets agreed for 2020

- 20% GHG reduction compared to 1990
  - Independent commitment
- 30% GHG reduction compared to 1990
  - In context of international agreement
- 20% improvement in energy efficiency
- 20% renewables share of final energy consumption
- 10% renewables in transport, with
  - sustainable biofuels production

Where do we stand today?

In 2005:

- **-6.5% GHG emissions compared to 1990**
  - **including outbound aviation**
  - **Kyoto target for EU15: 8%**
- **8.5% renewable energy**
  - **mainly through large scale hydro and conventional biomass**

Targets are ambitious:

- **-14% GHG compared to 2005**
- **+11.5% renewable energy share**

Climate Action
Energy for a Changing World

2008 Climate Action and Renewable Energy Package

- A new EU emissions trading scheme with a European (not national) cap, auctioning of allowances: to generate reductions in GHG of 21 %
- New national targets to achieve a 10 % GHG reduction in non-ETS sectors
- A framework to promote the development of CO2 capture and storage
- New guidelines on state aid for environmental protection
- An update on the implementation of the Energy Efficiency Action Plan
- New directive to reach the 20 % renewable energy target and 10 % biofuels target

Climate Action
Energy for a Changing World

Environmental State Aid Guidelines

Renewable energy

- **Member States can grant,** by combining investment aid and operating aid, **up to 100% of the additional net costs** RE investments.
- **Aid intensities for investment grants** have been **increased** from 40% to **60%** under the new rules.
- **Auto-Producers** (who produce renewable energy for their **own consumption**) are now **eligible for both investment and operating aid**.

Energy efficiency

- **Traditional energy-efficiency investments:** MS can grant **State aid to SME for investments with a pay-back time of more than 3 years**, and for **big companies not subject to the EU ETS** for investments with a **pay-back time of more than 4 years**.
- **Co-generation:** The rules for co-generation have been aligned with the rules for support for renewable energy.
- **District heating:** The new Environmental Guidelines recognise for the first time the important contribution district heating can achieve to energy efficiency. Aid intensities of up to 100%.

Carbon capture and storage

- Projects will be assessed directly under the EC treaty, allowing for aid intensities of up to 100%.

What are the costs & benefits of the package?

Climate Action
Energy for a Changing World

Benefits:

- The ultimate goal: avoid the cost of climate change impacts: 5-20% of global GDP (Stern)
- First mover advantage, aiming for technological leadership in low carbon technology
- Energy security: reduction of oil and gas import of €50 billion p.a. (at $61 per barrel of oil)
- Reduced need for air pollution control measures: €11 billion p.a. in 2020

Costs:

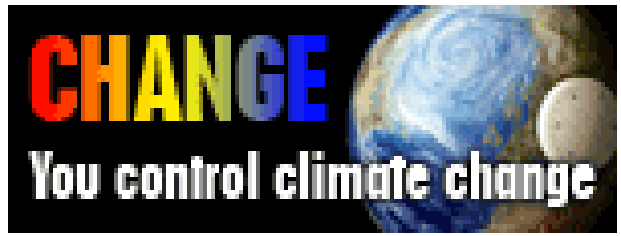
- Direct cost: increased energy and non CO_2 mitigation cost to meet both targets domestically: 0.6% of GDP in 2020, or some €90 billion
- Macro-economic GDP effects : GDP growth reduced by some 0.04-0.06% between 2013 and 2020, or in 2020 some GDP reduction of 0.5% of GDP compared to business as usual

The EU's package: relevance for the international negotiations

- **Demonstrates commitment**
  - structured so that the required level of greenhouse gas reductions increases automatically when the EU ratifies a global and comprehensive post-2012 agreement, so we are ready to take deeper cuts as soon as others come on board
- **Incentivises developing country engagement**
  - when the EU ratifies, more CDM CERS can enter EU ETS – but only from countries which are also ratifying the agreement.
- **Fair distribution of the effort**
  - Effort sharing between economically heterogeneous MS as a model for global deal
- **Rationalised ETS**
  - global carbon market must play a central role in a post-2012 climate agreement. ETS as backbone.

Outline

- Why cooperate with China?



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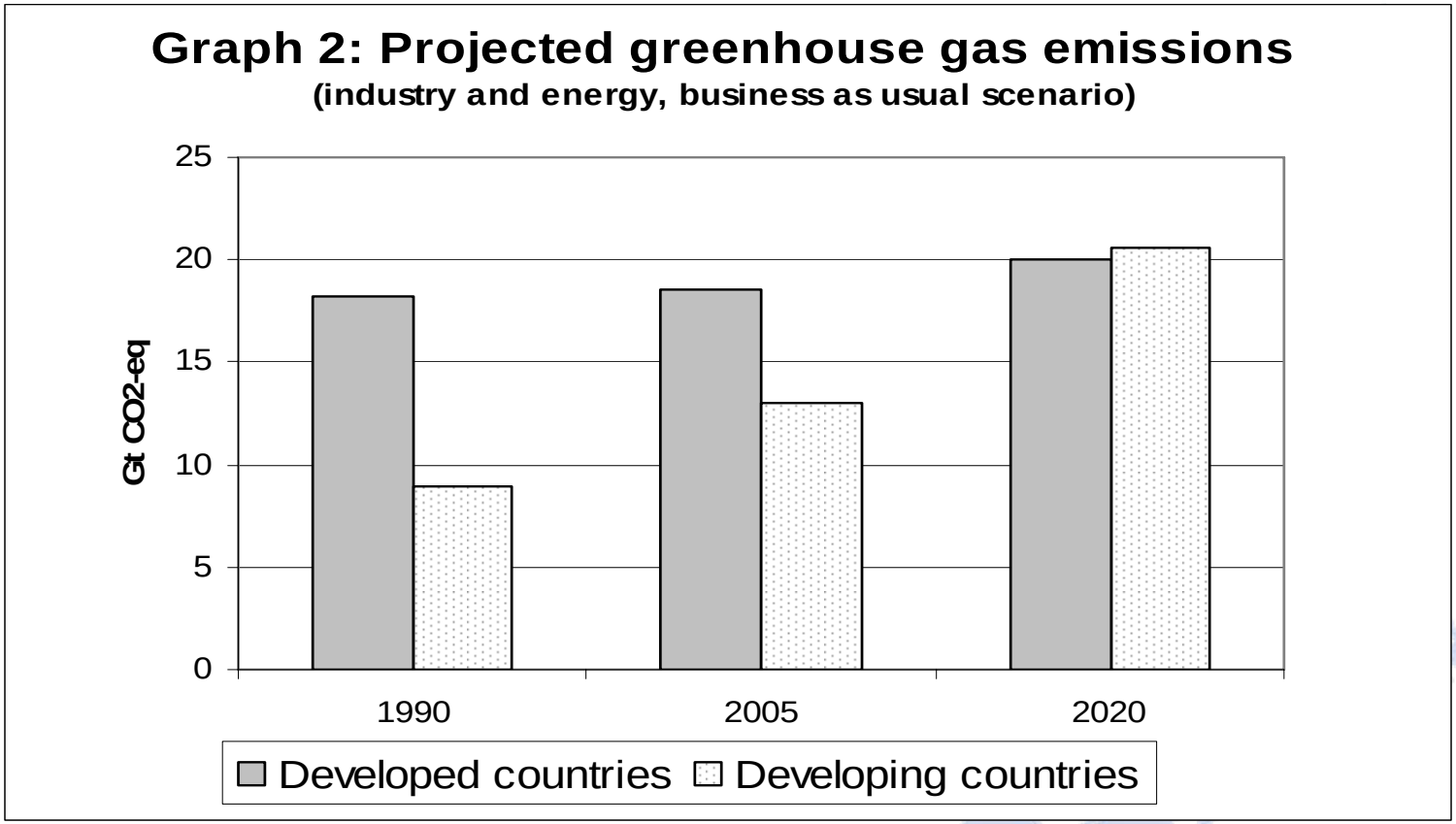
The EU: showing leadership, but we can't achieve objectives alone



Why cooperate with 3rd countries on clean carbon technologies and CCS?

- Even if we drastically reduce our emissions in Europe (i.a. via CCS), we need to tackle emissions of fossil-fuel dependent emerging economies in order to meet our 2ºC objective
- Cooperation on clean technologies will not only practically help developing countries tackle climate change, but could also help politically to get a deal on post-2012
- Demonstration in Europe alongside EU involvement in CCS demonstration abroad can create important opportunities for European companies and their competitiveness
- Portfolio approach

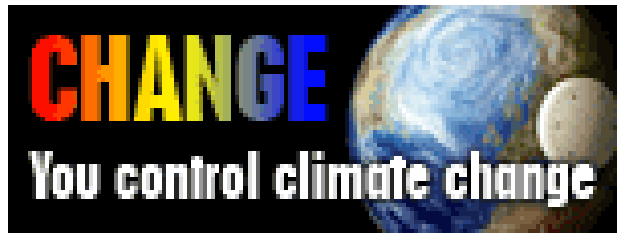
What have we promised to do? (1)

- **International Commitments under UN Framework Convention on Climate Change (UNFCCC)**
  - Technology Transfer
  - Financing

- **EU Commitments under Climate Change and Energy Packages**
  - 2007: COM(2006)843 - Sustainable power generation from fossil fuels: aiming for near-zero emissions from coal after 2020
  - 2008: COM(2008) 13 final - Supporting early demonstration of sustainable power generation from fossil fuels

Outline

- What are we doing?



What have we promised to do? (3)

2005 EU-China Summit

- **Established the EU-China Partnership on Climate Change**
- **Joint Declaration on Climate Change between China and the EU:**
  - "to develop and demonstrate, in China and the EU, advanced "zero-emissions" coal technology. This technology will allow for the capture of CO2 emissions from coal-fired power plants and its subsequent storage underground, for example in exploited oil or gas fields or in sealed geological strata, thereby avoiding CO2 emissions into the atmosphere."

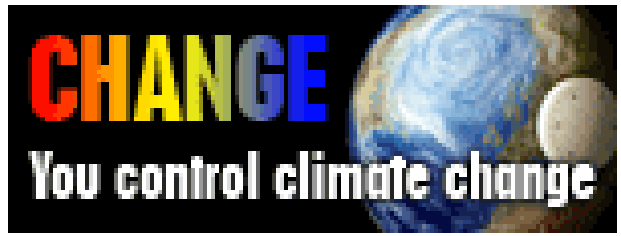
EU-China Partnership on Climate Change (2005)

- Rolling Work Plan, agreed Oct 06
- NZEC – carbon capture and storage demonstration plant
- Workshops on adaptation; mitigation scenarios and modelling; future flexible mechanisms
- Asia Carbon Expo, Oct 06

- **EU-China Energy Conference (since 1996)**
- **EU-China High Level Working Group on Energy**
  - EU-China Action Plan on Clean Coal Technologies (March 2005)
  - EU-China Action Plan on Energy Efficiency and Renewable Energies (March 2005)
- **EU-China High Level Dialogue on Energy and Transport Strategies (2005)**

Outline

- Opportunities for companies



Opportunities

- 1999-2003, for example, EU exports to China more than doubled, rising from USD 19.6 billion to USD 41.2 billion.
- Today, China represents EU's second biggest trading partner (after the US), while the Union is the first export market for P.R.C.
- China is pushing innovation and R&D. In UNCTAD survey of 2005, up to 61.8% of investors chose China as the most attractive location (41.2 % India, while UK, France and Germany draw only 13.2%, 8.8% and 5.9% of investors' interest)

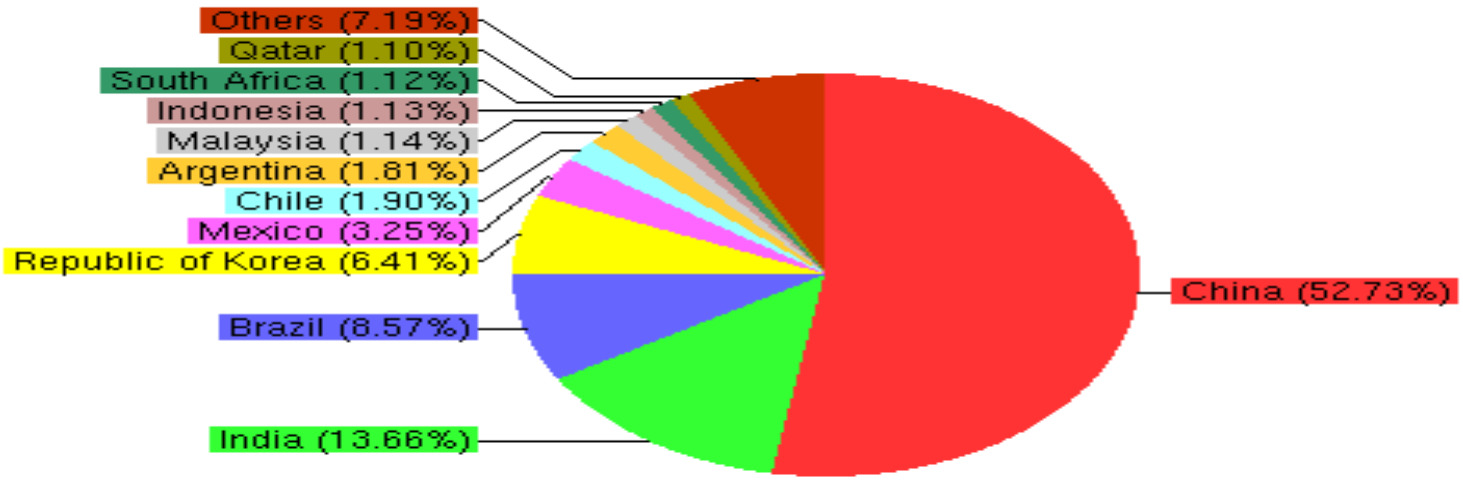
R&D opportunities

- 7th Framework Programme for Research
  - Total FP-7 budget: €32.37 billion
    - Energy: €2.30 billion
    - Environment (incl. climate change): €1.90 billion
    - Transport: €4.18 billion
- More research activities than ever open to 3rd country participation – India and China are priorities

CDM Opportunities

- EU & China: largest players on global carbon market
- Nearly 90% of all credits generated in China are bought by the EU (govts and co's).
- With just over 170 registered projects, this could equal EU purchases of as much as €700m/year

Expected average annual CERs from registered projects by host party. Total: 227,847,823



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Technology transfer

- Given poor efficiency levels, in the interests of all to improve the carbon footprint of Chinese industry, transport and construction sectors
- Global trade in the 43 products on the EU/US climate change list has doubled from USD 67 billion to USD 119 billion. Rapid growth in imports and exports.
- EU companies concerns: R&D obligations, foreign ownership, IPR loss
- Nevertheless, many EU companies active in Chinese market
- “Technology transfer” is misleading – we need knowledge sharing, FDI, joint R&D – range of approaches required

Communication on funding CCS demonstration cooperation

- Set out how to disburse €60m DG ENV funding (2009-2013) for clean coal technology transfer activities
- Set out a financial vehicle to fund near-zero emission coal (NZEC) cooperation with China and related cooperation with other emerging and developing countries (SICAV fund)
- Current MoU – completion by 2020 – want to advance the date
- Communication for adoption April 2009 – stakeholder input welcome

⇨ **Communication on "Financing CCS and other clean carbon technologies in emerging and developing countries"**

More information on EU climate policy:
http://europa.eu.int/comm/environment/climat/home_en.htm