Climate Action and Renewable Energy Package

Objectives agreed for 2020

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

Where do we stand today?

In 2005:

- -6.5% GHG emissions compared to 1990
  - including outbound aviation
- 8.5% renewable energy
  - mainly through large scale hydro and conventional biomass

Targets are ambitious but feasible

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

What is in the package?

- Overall Communication
- Revision of EU Emissions Trading System (the ETS)
- Effort sharing in non ETS sectors
- Directive on promotion of renewable energy, report on renewable energy support schemes
- Directive on carbon capture and storage, and Communication on demonstration plants
- Revised environmental state aid guidelines
- Accompanying integrated impact assessment

GHG Target:

-20% compared to 1990

-14% compared to 2005

EU ETS

-21% compared to 2005

Non ETS sectors

-10% compared to 2005

27 Member State targets, stretching from -20% to +20%

Approach

Cost-effectiveness AND Fair Distribution

Fairness: differentiate efforts according to GDP/capita

- national targets in sectors outside EU ETS
- national renewables targets (partially – half)
- redistribution of auctioning rights (partially – 10%)

Cost-effectiveness: introduce flexibility and use market based-instruments (EU ETS, transferability of Guarantee of Origin for renewables)

Review of the EU emission trading systems

Overall objectives of EU ETS review

- Cost-effective contribution to -20% GHG target for 2020, or to stricter target
- Improvement of the EU ETS based on experience
- A clear long-term carbon price

Scope

- ★ Cover all big industrial emitters: extension e.g. to certain chemical sectors and aluminium
- ★ Extension to other GHG: nitrous oxide (e.g. nitric acid), perfluorocarbons (aluminium)
- ★ Leads to new abatement opportunities, lower overall costs, and higher efficiency

- ★ Potential “opt-out” of small emitters, if equivalent emission reduction measures in place (e.g. tax)

Cap setting

- New: single EU-wide cap instead of 27 caps set by MS
- Allowances available in 2020 = 1720 Mt
  - - 21% compared to 2005 verified emissions
- Linear decrease by 1.74% per year
  - predictable trend-line to 2020 *and beyond*
  - can be adjusted to stricter target
- Aviation to be included in line with political agreement
- With international agreement: total cap + linear factor adjusted

Allocation principles

- Harmonised allocation rules ensure level playing field across the EU
- Basic principle for allocation is auctioning:
  - Macro-economic benefits from good use of revenues
  - Efficiency of the ETS
  - Simplicity and transparency
  - Eliminates wind-fall profits
- Full auctioning for sectors able to pass through costs
  - Power sector
- Partial free allocation to industry as a transitional measure
  - free allocation phased out by 2020
- For sectors exposed to carbon leakage due to cost of allowances
  - free allocation up to 100% of their share. Sectors to be determined by June 2010
- In light of international negotiations: Commission to report on 'risk of carbon leakage' by 2011 and make any appropriate proposals, e.g.:
  - To review free allocation levels and/or
  - To introduce system to neutralise distortive effects

Auctioning/earmarking

- Auctioning rights distributed to Member States
  - Relatively more rights to MS with lower GDP/capita to balance high investment costs
- Auctions must be non-discriminatory, open to everybody and will be carried out by Member States on the basis of harmonised rules
- 20% percent of auction revenues should be earmarked for combating climate change, promoting renewable energies and addressing social impacts

Monitoring & Reporting, Verification & Accreditation, Compliance

- More harmonised rules on
  - monitoring and reporting of emissions by operators
  - verification of reports and accreditation of verifiers (including mutual recognition)
- This will enhance reliability and thus international credibility of the EU ETS
- Non-compliance penalties (100€/t) to increase by inflation rate to keep deterrent effect

International aspects: JI/CDM, linking

- Already now, companies can use credits from Joint Implementation and Clean Development Mechanism projects (the latter carried out in developing countries) for compliance
- “Left-over” credits from 2008-2012 can be used 2013-2020: total 1.4 bt for 2008-2020, one third of reduction effort over the period
- which type of projects: same as for non-ETS
- When international agreement concluded, increased use of credits allowed automatically, in order to meet stricter reduction target
  - Half of additional effort
  - Only credits from countries which have ratified the agreement
  - Important incentives for global climate agreement
- Possible to link EU ETS not only to other national emission trading systems, but also to sub-federal and regional systems

Conclusions

- Emission reduction objectives of the Community require most efficient approach
- A more harmonised EU ETS is able to fully exploit the benefits of emissions trading
- The proposal
  - ensures significant contribution by ETS to overall targets
  - provides a predictable and reliable long-term perspective for industry to take the necessary investment decisions
  - takes into account competitiveness and risk of carbon leakage
  - makes ETS attractive for other countries to join
  - credibly underlines EU leadership

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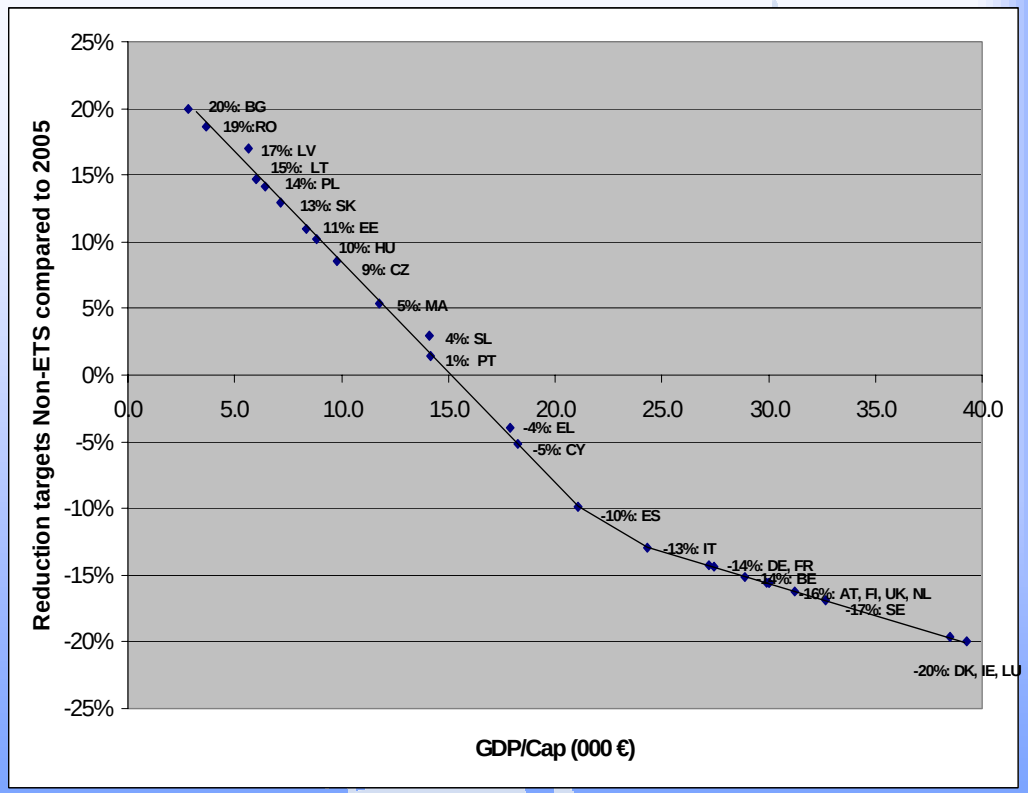
Sharing of the efforts in non ETS sectors

Non ETS targets compared to 2005 – Article 3

- Need to take into account the wide divergence of wealth in the EU-27
- GDP/capita as criterion for differentiation (ability to pay)
- Limitation: between -20 and +20%
- Consequences :
  - poorer Member States can continue to grow in sectors such as transport
  - overall cost increases marginally compared to cost-effectiveness
  - but significant equalisation of overall effort between Member States



Non ETS targets compared to 2005 - Article 3

- 2013 : average of non ETS emissions 2008 -2010
- Linear path towards national target 2020
- Flexibility :
  - Overachievement can be carried over to next year
  - Carry forward 2% of emission limit from next year
  - CDM

Non ETS & international agreement – Article 6

- Total additional reduction proportional to reduction non ETS towards -20%
- Additional reduction for each Member State proportional to its non ETS emissions in 2020
- Use of credits :
  - increase up to half of total additional effort
  - From countries that have ratified the new agreement
- Up to 3% of 2005 non ETS emissions
- Allowed credits :
  - CERs, ERU's issued 2008 -2012
  - CER's Issued after 2012 for projects registered 2008-2012
  - Projects implemented in LDC's
  - Following agreements

Carbon Capture and Storage - background

- CCS – to capture CO_2, transport and store it in geological formations
- While energy efficiency and renewable energy are shorter-term solutions, other options are needed in longer term if we are to reach 50% GHG reduction globally in 2050
- It is crucial from a global perspective
- CCS has been demonstrated as functioning, but not yet as an integrated process or at reasonable costs

Carbon Capture and Storage -proposals

- Enables CCS by providing legal framework to
  - Manage environmental risk
  - Remove barriers in existing legislation
- Provisions for ensuring environmental integrity through the life-cycle of the plant (site selection up to post closure)
- CO_2 captured and stored will be considered not emitted under the ETS:
  - CCS can be opted in for Phase II (2008-2012)
  - CCS explicitly included for Phase III (2013-2020)
- Communication on promotion of demonstration plants

What are the benefits of the package?

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- The ultimate goal: avoid the cost of climate change impacts: 5-20% of global GDP (Stern)
- Large scale innovation in the energy sector
- First mover advantage, aiming for technological leadership in low carbon technology
- Significant energy efficiency improvements
- Energy security: reduction of oil and gas import of €50 billion per year (at $61 per barrel of oil)
- Reduced air pollution giving significant health benefits
- Reduced need for air pollution control measures: €11 billion per year in 2020

What are the costs of the package?

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- 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
- These are conservative estimates :
  - oil price of $100 per barrel would reduce costs by €30 billion
  - foreseen use of cheaper CO_2 credits through investments in Clean Development Mechanism reduces costs by a quarter
  - does not include positive macro-economic rebound effects of re-injecting auctioning revenues back into the economy, estimated at maximum +0.15% of GDP

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Info on the Climate Action and Renewable Energy Package at

http://ec.europa.eu/environment/climat/climate_action.htm