The project is funded by the European Commission's
Directorate-General Environment

EU Transport GHG: Routes to 2050?

Session 3 – Review of policy instruments

1st Stakeholder Event
Friday 27th March 2009, Brussels

www.eutransportghg2050.eu

AEA CE Delft TNO ISIS milieu

Purpose of the review

- element of part I of the project
  - February – August 2009
- overview of available information on policy instruments
  - results of studies
  - incl. underlying assumptions
- establish consensus on state-of-the-art insight
- identification of knowledge gaps
- focus on longer term
  - move beyond the current debate
- provide quantitative & qualitative inputs for to the development of proposals for future policy frameworks

Review of GHG reduction measures

GHG reduction options:

Measures that physically affect GHG emissions

Technical options

- efficiency improvements
- alternative powertrains
- alternative fuels
- weight reduction
- ITS
- ....

Non-technical options

- driving behaviour
- purchasing behaviour
- traffic measures
- improved logistics
- volume reduction
- ....

Policy instruments:

Measures that promote the application of technical and non-technical options that physically affect GHG emissions

- information campaigns
- regulation
- fiscal measures
- cap & trade (ETS)
- subsidies
- ....

Review of information on policy instruments

- Review of available information to create state-of-the-art overview of of GHG reduction policy instruments
- Data / information sources
  - literature
  - stakeholder & expert input
  - expert knowledge / judgement of consortium and own calculations
- Create fact sheets
  - fixed format with headings for various aspects
- Summarize & analyse results in overview papers

Overview of policy instruments

- Regulation (e.g. vehicles, fuels)
- Fiscal measures (e.g. fuel taxes)
- Emission trading
- Differentiation of existing charges
- New charges (e.g. road charges)
- Subsidies
- Information and education
- Public procurement policy
- Innovation programmes and demonstrations
- Voluntary agreements
- Infrastructure policy
- Spatial and urban planning

Aspects reviewed for policy instruments

- type of policy instrument
- point of application
  - volume reduction / efficiency of transport operation / modal shift / CO_2 intensity of fuels / clean and efficient propulsion technologies
- description
- application area
- mechanisms of physical impacts
- timeframe for application
- legal aspects
- total GHG abatement potential
- cost-effectiveness
- economic assessment of measures (welfare-economic perspective)
- barriers for policy introduction
- interaction with other policy instruments
- uncertainties and main open issues
- other relevant information

Policy instruments ➔ physical changes

- How to create a market for low-carbon technology?
  - How to avoid lock-in and how to take barriers like high investments
  - Existing good practices
- How to promote structural changes?
  - What instruments?
- Need for limit transport growth?
  - Needed?
  - Economic impacts (welfare)
  - Decoupling
  - What instruments
  - Relatively high price incentives needed
  - Spatial changes require many decades

Macro-economic analysis

- Translation of cost curves for physical measures to a full CBA of policy measures
- How to assess all welfare impacts of various policy measures:
  - Direct costs
  - CO2 reduction
  - Reduction of fuel costs
  - Co-benefits (congestion, air pollution)
  - Rebound effects
  - Welfare impacts of volume effects, loss of consumer surplus, structural changes, modal shift, vehicle down-sizing?
  - Wider economic impacts (labour market, global trade, etc.)
- GDP effects vs welfare effects
- What is required for decoupling:
  - CO2 growth from transport growth
  - transport growth from GDP/welfare growth

Other challenges

- Interaction between sectors and economies
  - Transport policy vs GHG policy in other sectors
  - EU policy irt global policy
- Coherent long term policy framework
  - Generic vs specific policy instruments
  - Synergy between pricing, regulation, spatial planning, etc.

Information needs

- Additional information on policy instruments:
  - recent studies
  - expert information
- Stakeholder visions:
  - Acceptance and barriers
  - What policy and incentives do stakeholders need to innovate?
  - Competitive European economy and GHG reduction: synergy or incompatible?