

Opportunities and Barriers: Approaches to sensitive LCS sectors

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Opportunities and barriers

Our agenda



- What sectors are most sensitive and/or vulnerable in the transition to LCS?
- What kind of inertia hinders transition to LCSs?
- What opportunities exist for such sectors in new “green” markets and what policy measures exist to achieve international level playing fields?

Opportunities and barriers

Question 1

Which sector faces the biggest challenges in the transition to low carbon societies?

- Electricity
- Surface transport
- Iron and steel
- Forestry conservation
- Aviation

Opportunities and barriers

Question 2

What is the most important challenge for energy intensive industries such as iron and steel?

- development and deployment of radical low carbon technologies to low-carbonize its production
- closing the efficiency gap between industries in different countries and to achieve a level playing field
- Retain competitiveness as domestic climate change policy is implemented by restricting import
- Securing subsidies to retain competitiveness

Opportunities and barriers

- Our starting point has been sectors such as iron and steel which are energy / carbon intensive and are exposed to substantial international trade
- We have also considered other sectors (e.g. electricity and transport) which are critical for the transition to a low carbon society
- The barriers and opportunities differ between these sectors – some are more ‘sensitive’ than others
- Key issue of data and transparency: especially if sectoral approaches to emissions reductions are considered

Opportunities and barriers

Which sectors are sensitive?

Sector	Share of global emissions	Exposure to international competition
Electricity and heat	25%	
Transport	14%	
Buildings	15%	
Motor vehicle manufacture	10%	
Aviation	2%	
Chemicals	5%	
Cement	4%	
Steel	3%	
Aluminium	1%	
Other industry	21%	

Energy intensive traded sectors

Characteristics



- Relatively high carbon intensity.
- Increasing demand in the international market
- Competition between developed and newly emerging economies – potential for carbon leakage

Energy intensive traded sectors

Opportunities and barriers



- Opportunities for engaging within sectors – especially with developing countries (e.g. through technology transfer)
- Technological options require investment – short term efficiency and long term radical
- Policy options include:
 - Technology incentives (carbon pricing and R,D,D&D funds)
 - Sectoral approaches have a lot of potential
 - Links between sectoral approaches and targets / trading schemes are important in some Annex I countries
 - Modification of trade policy is an option: but is it protectionist?

- Low carbon societies require fundamental changes on the supply and demand side of electricity systems
- There are many existing and potential low carbon options in this sector - some could also help energy security
- A key challenge is 'lock-in' to established infrastructure, and long timescales for capital stock turnover
- Incentives to develop and deploy low carbon options – there is an issue of consumer acceptance due to costs
- Technology transfer to deploy new technologies in developing countries – including efficiency improvements

Transport (cars)

- Transport emissions rising in many countries.
- Many options for emissions reductions: efficiency increase, low carbon fuels, modal shift, behavioural and demographic change
- Biofuels have some potential but are controversial
- New standards on carbon intensity of new vehicles play a critical role: manufacturers differ in their attitudes

