

BUSINESSEUROPE



Cost efficient instruments for a low carbon economy – the role of taxation

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Presentation Outline

- The business context
- New technology
- BUSINESSEUROPE's response to Carbon Tax
- Emission Trading System Tax issues



The Business Context



Kaya formula captures the required transformation of the energy system – effectively a new industrial revolution

$$F(\text{CO}_2) = P * (\text{GDP}/P) * (\text{E}/\text{GDP}) * (\text{F}/\text{E})$$

Changes required to achieve a 70% reduction in GHG emissions in 2050

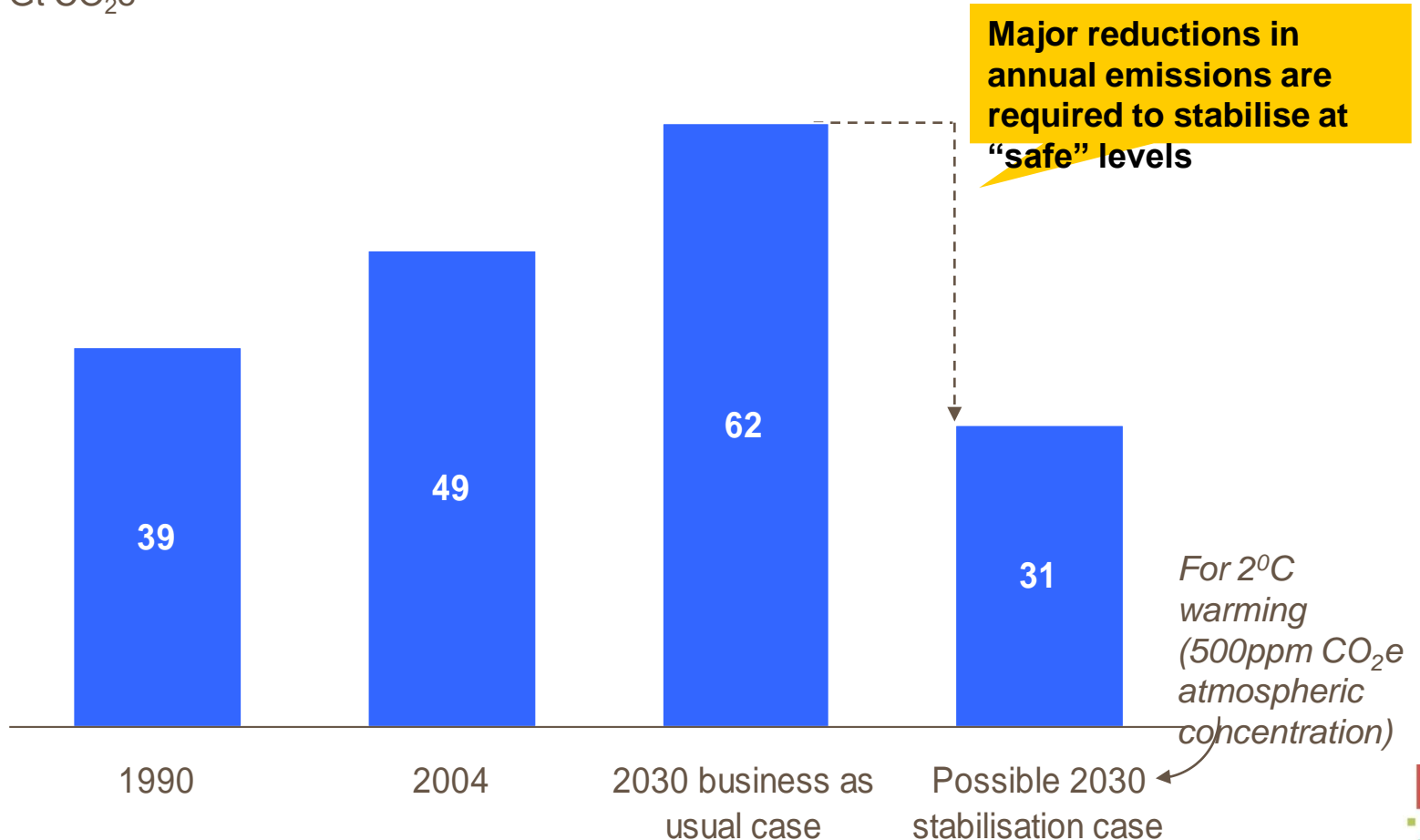
Global population	GDP/capita	Energy intensity of GDP	Carbon intensity of energy	
74%	74%	74%	74%	
150%	58%	58%	58%	1%/yr population growth
150%	220%	30%	30%	2%/yr GDP/P growth
150%	220%	80%	11%	20% efficiency improvement

- F is global CO2 emissions from human sources,
- P is global population,
- GDP is world GDP and (GDP/P) is global per-capita GDP,
- E is global primary energy consumption and (E/GDP) is the energy intensity of world GDP,
- and (F/E) is the carbon intensity of energy.



The global challenge is huge and will require multi-decadal change processes across industries

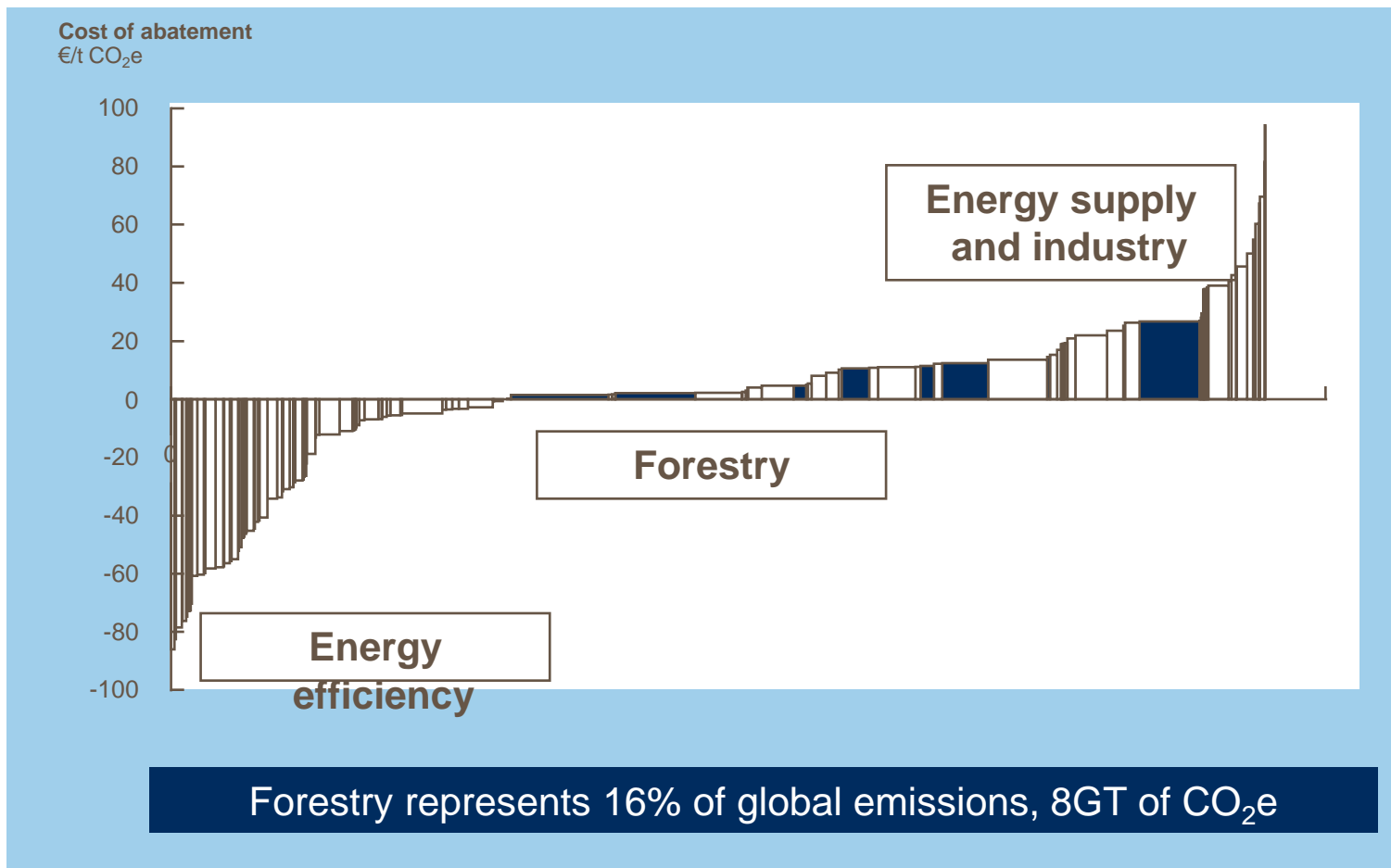
Global annual GHG emissions
Gt CO₂e



Source: IPCC; Stern Review (Part I and III); McKinsey



The global abatement curve for carbon has three distinct elements



* LULUC – Land Use and Land Use Change
 ** Includes forestry potential in Annex-1 countries
 Source: McKinsey Global Cost Curve 2.0, IPCC, IEA



Key Building Blocks of Climate Policy

- Three critical building blocks :
 - **Transitional support for energy-intensive trade-exposed (EITE) sectors.**
 - **Adoption of cost containment provisions in policy design.**
 - **Encouraging accelerated technology R&D, demonstration and deployment.**



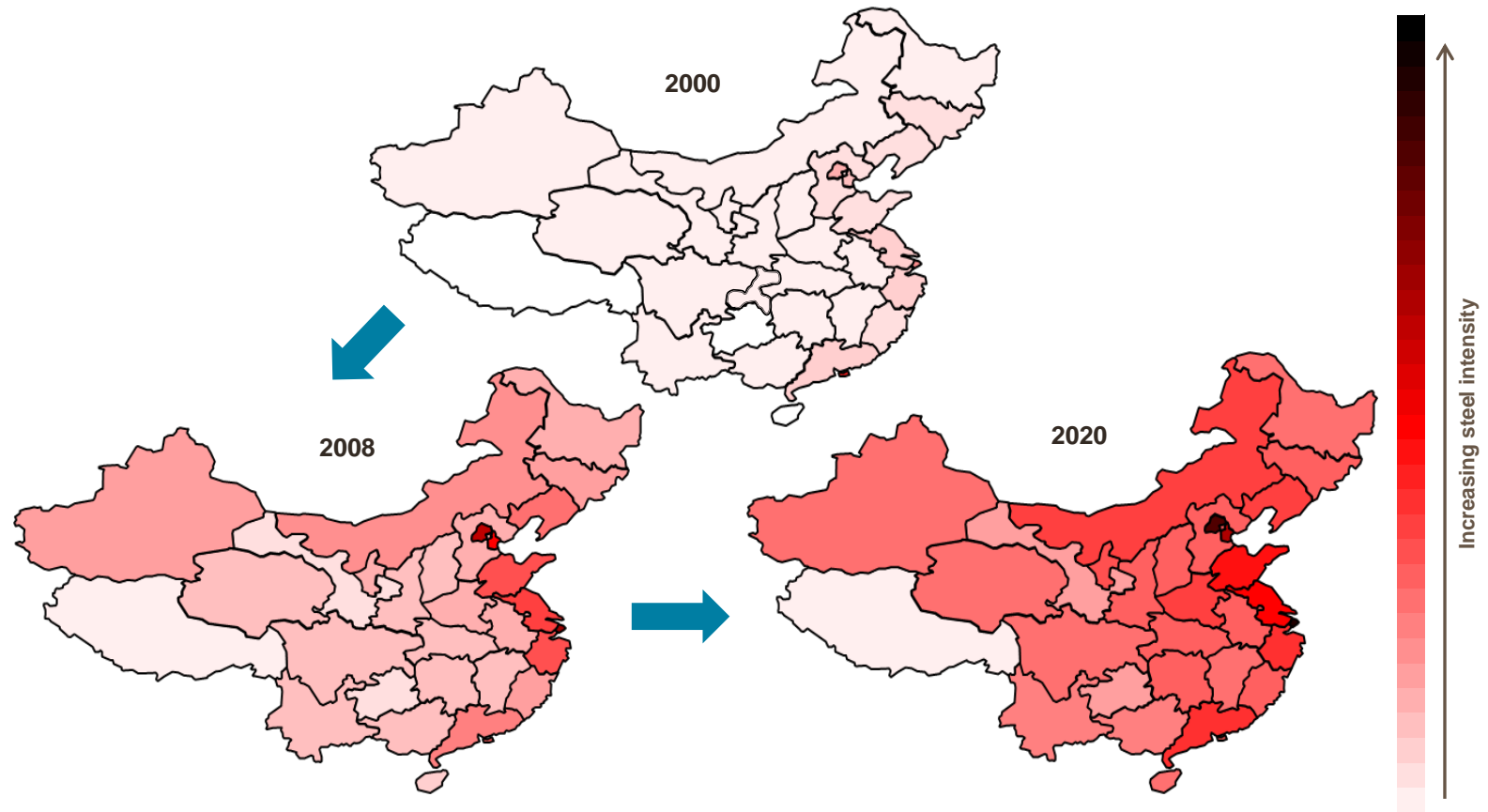
Hydrogen Energy is developing a project in California



- Produces 250MW net electrical power
- Operates on 100% petcoke with up to 75% bituminous coal
- Captures 90% of the CO₂ (over 2 million tons annually)
- CO₂ injected into deep oil reservoirs for EOR and sequestration
- > \$30 million spent to date



Urbanisation will continue to drive Chinese steel finished consumption



* Maps show per capita steel consumption (kg/person)
 Source: WSA, China NBS, Global Insight, RTIO Analysis



Chinese growth is set to continue



Chongqing city, western China

- Chinese growth has averaged 9.5% over the past decade
- 120+ cities in China with more than 1 million inhabitants today – 220+ by 2030 (Europe has 35 now)
- World's largest consumer of iron ore, copper, coal and aluminium
- India set to follow



Key Building Blocks of Climate Policy

- Reduce emissions at the lowest marginal cost
- Offset mechanisms are key to achieving this
- Exporting emissions achieves nothing but harms the competitive position of Europe
- Technological development **and** deployment are crucial to reducing emissions

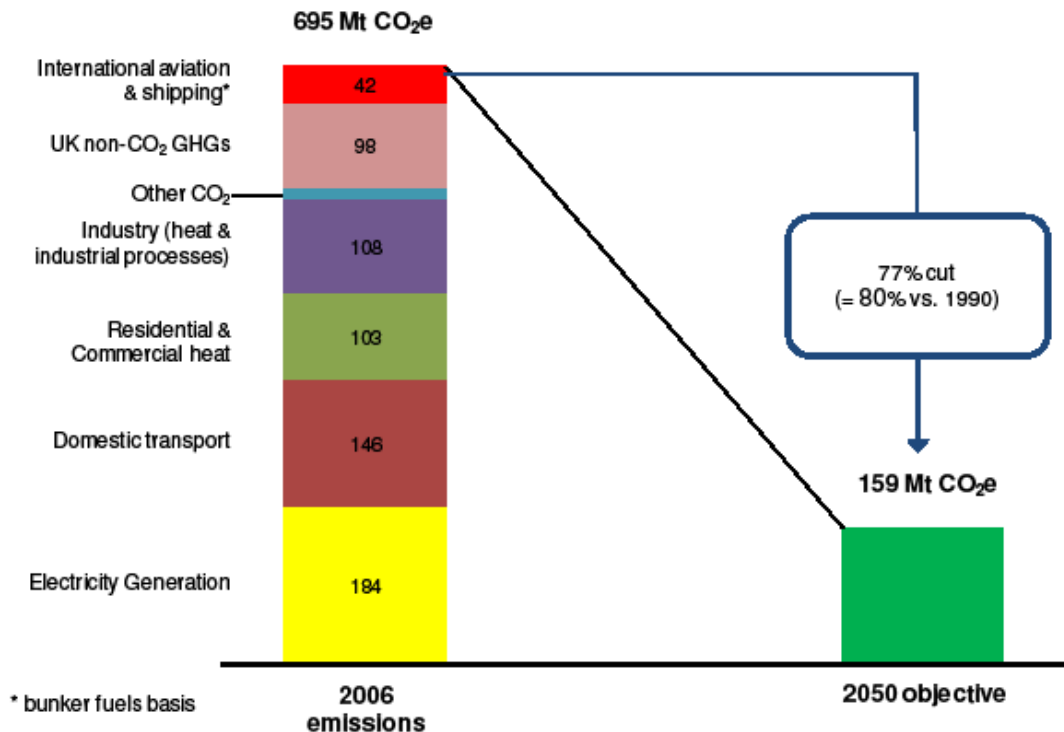


New Technology



Carbon policy – UK emission reductions

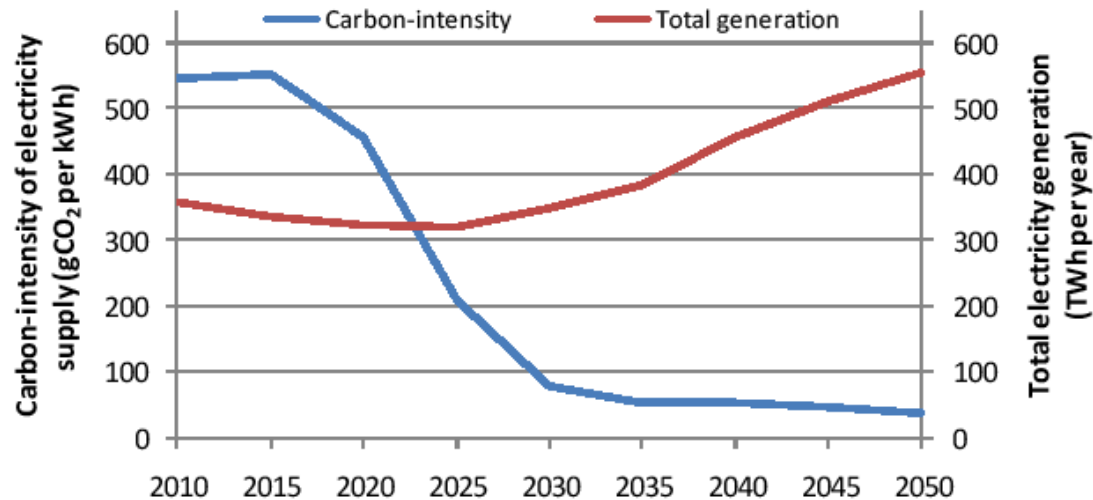
In its report in December, the CCC recommended that global emissions should fall to around 2 tonnes CO₂e per capita by 2050, meaning a cut for the UK of around 80% vs. 1990 levels



Carbon policy – decarbonising electricity - UK

The CCC emphasised the importance of largely decarbonising the power sector by 2030 on the way to achieving an 80% target by 2050

- The precise mix of renewables, nuclear and CCS is uncertain, but thermal plants with CCS offer more operational flexibility than wind or nuclear.



BUSINESSEUROPE's response to Carbon Tax



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – Policy

- BUSINESSEUROPE recognises policy objective on emission reductions
- Policies need to be properly evaluated as to cost efficiency in reaching environmental policy objective at lowest cost while preserving competitive position of all European business
- One size approach may not be appropriate
- State aid issues must be addressed to ensure that efficient measures which address environmental policy objectives are not penalised



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – If Carbon Tax

If a carbon tax is an appropriate measure then five key issues:

1. No taxation of installations covered by ETS
2. No taxation of emissions covered by equivalent measures
3. Mirror free allocation under ETS
4. Facilitate use of offset mechanisms
5. Minimise administrative burden



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – If Carbon Tax

1. No taxation of installations covered by ETS

- CO2 tax on ETS installations would raise costs without generating additional emission reductions
- CO2 tax where free allowances is contrary to policy objectives of issuing free allowances (trade exposure)
- Free allowances will decrease over time due to mechanism
- Exemption from CO2 tax should not be challenged by State Aid guidelines
- No double taxation!



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – If Carbon Tax

2. No taxation of emissions covered by equivalent measures

- The policy objective is to reduce emissions, economic efficiency supports achieving this at lowest cost
- “Equivalent measure” is used in the ETS directive and allows small installations to be excluded from ETS if subject to “measures that will achieve equivalent contribution to emission reductions”
- “Such measures could include taxation, agreements with industry and regulation”
- Voluntary agreements at National level resulting in emissions reductions are equivalent measures where backed by a monitoring and penalties system.



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – If Carbon Tax

3. Mirror free allocation under ETS – Protect trade exposed businesses

- Exempt sectors on ETS carbon leakage list, exemption in line with % free allocation from sectoral benchmarks
- For non ETS sectors develop criteria to identify those exposed to risk of relocation
- Transitory increases in tax to mirror ETS, 20% in 2013, 70% in 2020 and 100% in 2027
- ETS covers installations, ETD processes. Interface needs to be clear.



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – If Carbon Tax

4. Facilitate use of offset mechanisms

- Offset mechanisms are a key feature of ETS in terms of CDMs and incentives for CCS, Renewables and Reforestation
- Similar offsets should apply to CO2 tax for cost efficiency and level playing field
- Allow international emission reduction projects which reduce emissions in another member state or outside the EU



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – If Carbon Tax

5. Minimise administrative burden

- Need for standard conversion to move from volume and weight to CO₂ and GJ
- Need for mechanisms for exempt installations to avoid need to fund CO₂ tax and then recover



BUSINESSEUROPE's response to the Revision of the Energy Tax Directive – If Carbon Tax

BUSINESSEUROPE's position paper on the Revision to the Energy Tax Directive after the stakeholder consultation in September 2009 is available:

<http://212.3.246.117/Common/GetFile.asp?docID=24916&loginname=guest&mfd=off>

Emission Trading System Tax Issues



VAT and Sales Tax (both issued and commercially acquired permits)

- Basic Treatment – Outside scope, exempt or zero rated
- Recoverability of input tax
- Documentation requirements for cross border transactions
- Treatment of CDMs



Corporate Income Tax – Tradable Permits

- Treatment of acquisition of permit for cash – characterisation
- Treatment of free allocation of permits
- Tax issues arising from permits acquired and used in different accounting periods
- Treatment of permits acquired by financial institutions
- Treatment of financial instruments based on trading permits
- Transfer Pricing issues on transfer of permits within a group
- Applicability of CFC legislation to entities owning tradable permits



Corporate Income Tax – Offset Mechanisms

- Characterisation of Offset Mechanisms – CDMs and domestic/regional
- Treaty analysis of cross border transactions – capital gains, withholding tax
- Incentives for offset mechanisms
- CCS – decommissioning treatment
- Transfer pricing
- Treatment of penalties



Concluding remarks

- The objective should be to reduce emissions at the lowest marginal cost – use the most appropriate measures.
- Offset mechanisms are key to achieving this
- Exporting emissions achieves nothing but harms the competitive position of Europe – trade exposed industries are important
- Technological development **and** deployment are crucial to reducing emissions
- Double taxation does not reduce emissions



Thank you

