

# **Role of Trading in Environmental Protection: A European Perspective**

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# Outline

- “Cap & trade” basics
- Danish CO2 quota scheme
- UK Emissions Trading Scheme
- EU Emissions Trading Scheme
- Planned national schemes
- Future prospects

# “Cap & trade” basics

- Cap overall emissions
- Distribute allowances
- Impose obligations on regulated industry
  - Monitor and report emissions
  - Surrender allowances
- Establish trading mechanism
- Sit back ... and enforce

# A win-win solution?

- Regulator
  - Avoids site-specific ELVs
  - Simplified enforcement
- Regulated industry
  - Lowers costs of abatement
  - Potential source of revenue
- NGOs
  - Certainty of overall effect
  - Hot spots?

# Alternatives

- Trading vs. environmental taxes
  - Environmental certainty vs. price certainty
- Other trading options
  - Project-based: high transaction costs
  - Rate-based: limited environmental certainty

# Danish CO<sub>2</sub> Quotas for Electricity Production

- Began in 2000
- 90% of CO<sub>2</sub> emissions from electricity sector
- Reduction of 1mt per year from 23mt
- Grandfathered on share of 1994-98 emissions
- Generic or specific conversion factors
- Penalties: excess emissions 'tax' of €5/t

# UK Emissions Trading Scheme

- Began in 2002
- Cap & trade for direct participants
- 31 companies across economy
- All six GHGs – approved monitoring protocols
- Emissions statements to be verified
- Penalties
  - Excess emissions: penalty docking > £30/t
  - Other discretionary penalties
- “Gateway” allows link to rate-based CCAs
- Electronic registry

# EU Emissions Trading Scheme

- Phase 1: 2005 to 2007
- ~50% of EU CO<sub>2</sub> emissions
- >12,000 installations in 25 states
- Harmonised monitoring and reporting guidelines
- Emission reports to be verified
- Penalties
  - Excess emissions €40/t to €100/t
  - Other “effective, proportionate and dissuasive” penalties
- Links to Kyoto project mechanisms

# Planned national schemes

- UK
  - Landfill Allowance Trading Scheme
  - Water rights trading
- Netherlands
  - NOx trading scheme

# Future prospects

- Sixth Environmental Action Programme
  - Communication on IPPC Directive
  - Large Combustion Plant Directive
  - Shipping - SO<sub>2</sub> & NO<sub>x</sub>
- Expansion of EU ETS
  - Commission review at end of 2004
  - Unilateral inclusion from 2008
  - Transport (including aviation)
- Green “energy efficiency” certificates

# Enforcement & Compliance issues

- Relationship with verifiers
- Liability for false information
  - Data used for allocation decisions
  - Annual reports
  - Late discovery
- Regulator's role in allocation decisions