

# Emissions Trading: Ensuring Compliance and Environmental Integrity in Climate Markets



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# Introduction

- INECE: International Network for Environmental Compliance and Enforcement
- Market instruments as complement command and control
- Emissions trading schemes
- EU Emissions Trading Scheme
- Initial results
- Challenges for the future
- Concluding remarks

# Environmental Compliance and Enforcement

- Importance of networks
  - Raising awareness on compliance/enforcement
  - Cooperation across networks on enforcement
  - Strengthen capacity to implement and enforce environmental requirements
- Crucial to organisations with primary role in enforcement
  - Benchmark against others
  - Share experiences
- Role of regulator can be a lonely one!!
- INECE, IMPEL, EEN
- Network can have critical role in success or failure of initiatives

# Using market instruments

- Traditional Command and Control
- Move to market instruments
- Harness creativity and innovation of private sector rather than prescriptive approach of regulator
- Many examples
  - Market based instruments
  - Financial support mechanisms
  - Supporting instruments

# Emissions Trading

- Market based scheme should provide most cost-effective policy instrument
- Encourage reductions at least cost
- Pioneered in US with Acid Rain Programme 1995
- US still has majority of programs
  - Mostly deal with local environmental problems
- Gaining in use worldwide
  - 12 schemes now established
  - Compulsory schemes (EU ETS, ARP)
  - Voluntary and self regulated (CCX, JVETS)
  - EU ETS deals with a problem which is global

# EU Emissions Trading Scheme

- Global climate change most pressing and challenging environmental issue
- Requires global action
- Scientific evidence hardening all time
  - IPCC 4<sup>th</sup> Assessment Report
- Top of political agenda in Europe
- Stern report for UK Government
- Enormous costs of failure to act
- Limit temperature increase to 2 degrees C to avoid massive and irreversible disruptions of the global eco-system

# Kyoto Protocol

- Ratified by EU and Member States in May 2002
- Objective to prevent dangerous anthropogenic interference with climate system
- Sets legally binding targets
- Reduction of 5% on 1990 by developed countries
- Reduction of 8% by EU
- Burden sharing
- Key tool is EU ETS
- Reduce ghgs in cost effective and economically efficient way

# EU Emissions Trading Scheme

- Classic 'cap and trade' scheme
- Largest multi-country, multi-sector GHG trading system
- Each MS produces NAP setting out total allocation of emission allowances and allocation to each installation covered
- Cap on total number of allowances creates scarcity so trading will take place
- Limited auctioning allowed
- Companies can limit or reduce emissions at least cost
- NAPs approved by EU Commission so that they are consistent and fair
- Pilot scheme 2005-2007; Kyoto phase 2008-2012

# EU Emissions Trading Scheme

- Covers over 11,500 installations
- Represents almost half CO2 emissions
  - Combustion plants
  - Oil refineries
  - Coke ovens
  - Iron/steel plants
  - Cement factories
  - Glass
  - Lime
  - Brick
  - Ceramics
  - Pulp and paper
- Ireland 111 plants; 33% CO2 emissions

# How does it work?

- Installations issued permit
  - Allows them to trade
  - Obliges to report emissions annually by March 31<sup>st</sup>
- Emissions validated by accredited verifiers
- Surrender allowances equal to verified emissions by April 30th each year
- Penalties of €40/tonne in pilot phase; €100 Kyoto phase
- Allowances exist electronically
- Registries track issue, transfer, surrender, cancellation
- CITL checks transactions and ensures reconciliation of systems

# Results for first year 2005

- 8,980 installations representing 99% emissions had surrendered allowances by due date April 30<sup>th</sup> 2006
- Most others surrendered soon after
- Some companies fined for not complying
- 21 Member States with active registries
  - Annual average allocation 1,829 million allowances
  - Verified emissions 1,785 million allowances
- Lower emissions than expected year 1
- Emissions reductions or overallocation?
- Seven MS underallocated
- Commission to be tough on caps in Kyoto phase

# Price

- Phase 1 allowances
  - €7/tonne May 2005
  - €30/tonne April 2006
  - €4/tonne January 2007
  - €1/tonne March 2007
- Phase 2 allowances
  - Currently around €14/tonne
- Price driven by number of factors
  - Oil /gas price
  - Weather
  - Political decisions
- Commission decision re caps for Phase 2 will be crucial

# Future plans for EU GHG Emissions Trading

- EU committed to global carbon market as key tool in fighting climate change
- Has signalled intent to cover other sectors and other gases post 2012
  - Aviation; N<sub>2</sub>O from ammonia; CH<sub>4</sub> from coalmines;
  - Interaction with sequestration etc
- Level of ambition post 2012 still to be determined
- Proposal for unilateral cuts of 20% by 2020 and 30% if other countries will agree
- Adopt leadership position
- Signal to industry will encourage investment in emission reduction technologies and low carbon technologies
- Already key driver of international carbon trading

# Outside the EU

## ■ Climate Trading Schemes

- Chicago Climate exchange – CCX
- Regional Greenhouse Gas initiative – RGGI
- Japan Voluntary Emissions Trading Scheme
- New South Wales Greenhouse Gas Abatement scheme
- California Climate Registry

# Challenges facing Emissions Trading

- Within schemes
  - Significant variations in approach between MSs in EU ETS
- Between schemes
  - Huge differences in reporting, compliance, rules, reflecting culture differences
- Across schemes
  - Public credibility, natural suspicion
  - 'buying our way out'
- Ability to trade across schemes
- Treatment of JI/CDM/flexible mechanisms

# Way forward

- Compliance within schemes (tonne of CO<sub>2</sub> in Ireland equal to tonne of CO<sub>2</sub> in Greece)
- Convergence towards shared international standards and principles of monitoring, reporting and verification across schemes
- Ensuring Environmental Integrity
  - Harmonisation of both rules and implementation to avoid lowest common denominator dictating environmental outcome
  - Clear and achievable monitoring and reporting rules
  - Robust verification requirements

# Compliance

- Penalties for non-compliance
- Naming and shaming
- Investment in time and resources to oversee the scheme
  - Control of operators' monitoring and reporting plans and data management systems.
  - Overseeing of verification - Accreditation Bodies and/or Regulators
- Information disclosure (for the public and market analysts)

# Linking schemes

- Harmonisation of rules and standards or mutual recognition?
- Mutual recognition allows for subsidiarity but can it achieve real equivalence?
- International companies may prefer harmonisation
- Use of international standards

# Concluding remarks

- Market mechanisms increasingly seen as critical tool in response to climate change
- Emissions trading here to stay
- Players need to have confidence in system
- Transparency, integrity, accountability
- Some experience to date
- EU ETS as pilot for global emissions
- Ability to link schemes will be crucial
- Depends on common framework to achieve trust
- Urgent and coordinated action necessary
- INECE role



epa

Environmental Protection Agency  
*An Ghníomhaireacht um Chaomhnú Comhshaoil*



epa

Office of  
Environmental  
Enforcement