

## Achieving Emission Targets

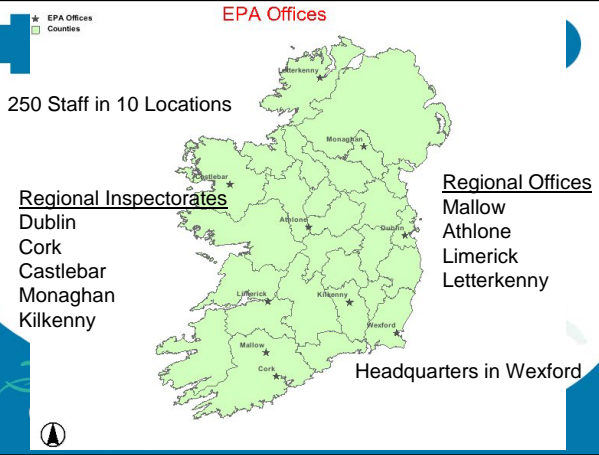


Dr Mary Kelly  
Director General

September 2005

## Environmental Protection Agency

- Set up in 1993
- Sponsor in Government is Department of Environment Heritage and Local Government
- EPA is an independent public body
- Statutory obligations in Acts and National Regulations
- Freedom to act on own initiative
- May take prosecutions



## EPA Organisational Structure

- Office of Licensing and Guidance
- Office of Environmental Enforcement
- Office of Environmental Assessment
- Office of Corporate Governance
- Office of Communications and Corporate Services



## EPA Roles in Relation to Air Emissions

- Preparation of National Emission Inventories
- Implementation of Emissions Trading Directive in Ireland
- IPPC and Waste Licensing
- Environmental Research
  - Including Cleaner Greener Production Programme
- Assessments (e.g. State of Environment Reports)



## Greenhouse Gas Emissions Targets

- Kyoto Protocol entered into force in 2005
- Overall EU Target: reduction of 8%
- Burden Sharing Agreement between EU Member states
- Ireland allowed an increase of 13% above 1990 levels
- Target date for Kyoto: 2008-2012

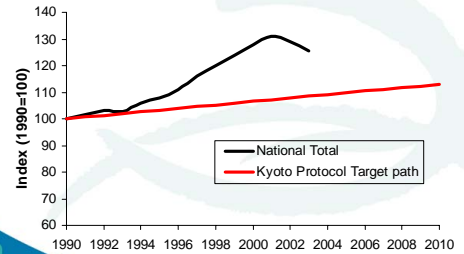


## Climate Change

- Major Global Issue
- EPA & Met Éireann research recently published
- Ireland already showing signs of Climate Change
  - Increases in Rainfall in North & West
  - Increases in max and min temperatures
  - Decrease in number of frost days
  - Changes to the growing season
- Future impacts in Ireland include:
  - Dramatic changes and regional variances in rainfall patterns
  - Increase likelihood of more extreme weather events
  - Increased risk of winter flooding in the Southeast

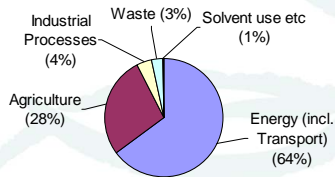
## National Greenhouse Gas Emissions

### Greenhouse Gas Emissions 1990-2003



## Greenhouse Gas - Sectoral Breakdown

### Sector Contribution 2003 (%)



## Sectoral Breakdown 2003

Sector	% Contribution 2003
Energy (incl. Transport)	64.6
Agriculture	27.8
Industrial Processes	4.4
Waste	3.0
Solvent & Other Product Use	< 1

## National Climate Change Strategy

- Sector-based measures
- Expansion of Renewable Energy
- Fuel Switching to Less Carbon Intensive Fuels
- Reduction in Methan from National Herd
- Reduction in use of Nitrates Fertilisers (Nitrates Action Plan)
- Use of Fiscal Instruments
  - Carbon Taxation
  - Emissions Trading
- Mixed Progress to Date: Some Measures introduced; Some Abandoned;

## EU Emissions Trading Directive

- EPA National Competent Authority for Implementing Directive in Ireland
- Cap and Trade Scheme
- Largest sector is "energy activities":
  - Installations with thermal input > 20MW
  - Mineral oil refineries, coke ovens
- Other sectors include; cement, glass, lime, paper, and ceramics.

## Emissions Trading

- Trading Sector "Slice" Allocated by Government
- EPA Divides Trading Sector Slice between Participants
- Over 100 installations in Scheme
- EPA also responsible
  - Issuing Permits
  - Verifying Emissions
  - Establishing Emissions Trading Registry
- Scheme Came into Operation - 1 January 2005

## Emissions Trading - Timelines

Date	Task
February 2005	Final allocation methodology published
March 2005	Final allocation published
May 2005	Registry established and allocation for 2005
Jan-April 2006	Independent verification of annual emissions
February 2006	Allocation for 2006 credited to registry accounts
April 2006	Accounts to be settled for 2005 emissions
June 2006	NAP for Kyoto phase (2008-2012)

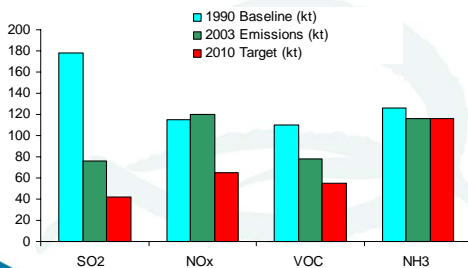
## Climate Change Challenges

- Compliance with Kyoto A Major Challenge
- Ireland Will Probably Need to Purchase Emissions Credits
  - Net Cost to Tax payer of approx. €74 million
- Carbon Taxation Not Being Introduced – Alternative Abatement Measures now needed
- National Climate Change Strategy:
  - Due to be Revised in 2005
  - Will need to consider progress made to date across all sectors
  - Needs to clearly set out all abatement policies and measures
- Increased Penetration of Renewable Energy
- Need to Consider Innovative Solutions (e.g. Biofuels)
- Post-Kyoto more stringent targets expected

## Acidifying Gases

- EU National Emissions Ceilings Directive
- Emission Ceilings for Each Member State for
  - Sulphur Dioxide (SO<sub>2</sub>)
  - Nitrogen Oxides (NO<sub>x</sub>)
  - Volatile Organic Compounds (VOCs)
  - Ammonia (NH<sub>3</sub>)
- Purpose - abate acidification, eutrophication and ground level ozone
- First Directive to set limits on the total emissions of pollutants

## Acidifying Gases Emissions & Targets



## Acidifying Gases Emissions & Targets

Pollutant	2010 Target (kt)	2003 Emissions (kt)	% Reduction Required
SO <sub>2</sub>	42	76	44
NO <sub>x</sub>	65	120	45
VOC	55	78	29
NH <sub>3</sub>	116	116	0

## Challenges

- National Strategy to be Published by Government in 2005
- Strategy Will Need to Integrate Fully with National Climate Change Strategy
- Key Issue – Transport Sector (major Contributor to NO<sub>x</sub> and VOC).
- Limited Opportunity for Further SO<sub>2</sub> Reductions Through Use of Natural Gas & Low Sulphur Fuel
  - Moneypoint- Flue-Gas Desulphurisation
- Decoupling in Agriculture Should Maintain Emissions of Ammonia

## Conclusion

- Ireland Faces Significant Challenges in Meeting International Commitments on Air Emissions
- Inaction will result in Real Financial Costs to Ireland
- Revision of National Climate Change Strategy Crucial
- National Abatement Strategy for Acidifying Gases Urgently Required
- Environment Needs to be Integrated into Policies, Plans and Actions of Other Economic Sectors
- Emissions from Transport Sector is likely to Remain Most Problematic and Difficult to Address