

Addressing Carbon Emissions: The UK's experience

December 2006



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Overview of Seminar

- STERN Review on Economics of Climate Change
- UK climate change targets and policies
- The European Union emissions trading scheme
- International links



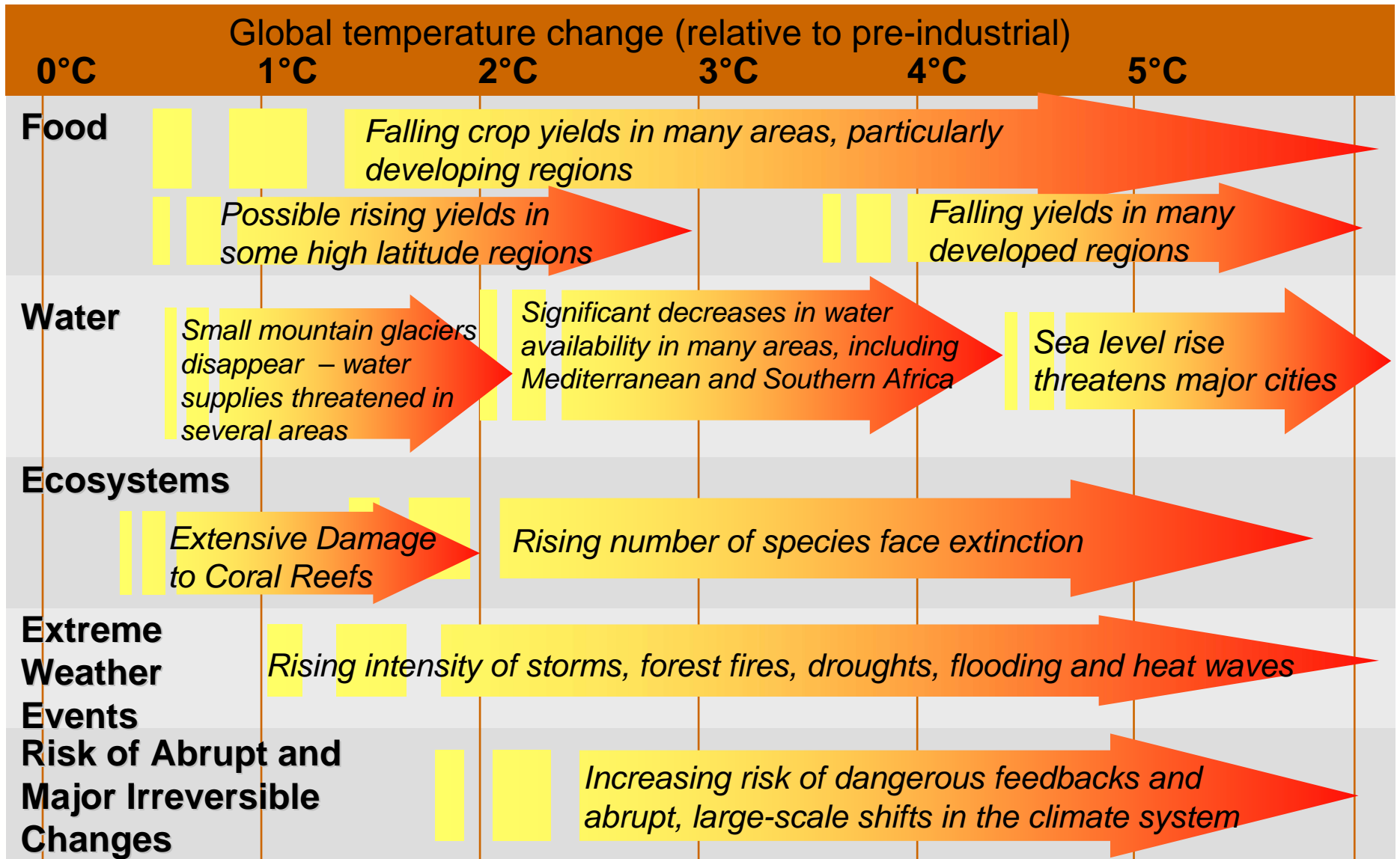


www.sternreview.org.uk

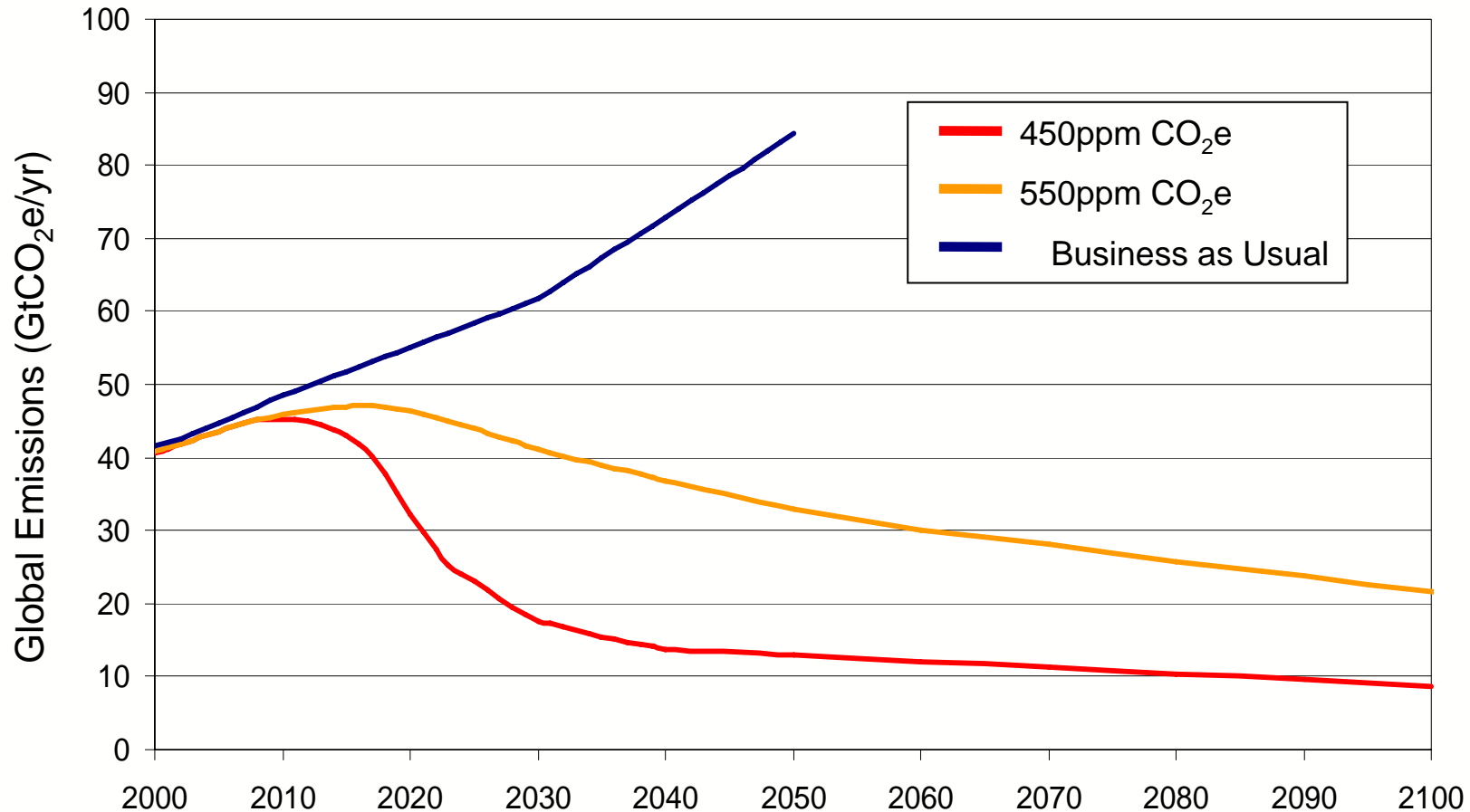


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Projected Impacts of Climate Change



Emissions Paths to Stabilisation



STERN'S CONCLUSIONS

- ***Action cheaper than inaction:***
 - 1% GDP v 5-20% GDP
 - Delay means greater risks and higher costs
 - Policies must be designed to reduce risk as much as possible
- ***Need all three policy responses:***
 - A carbon price
 - Increased technological R&D
 - Remove barriers to behavioural change
- ***And simultaneously address:***
 - Deforestation
 - Adaptation
 - Development



UK Climate Change Targets

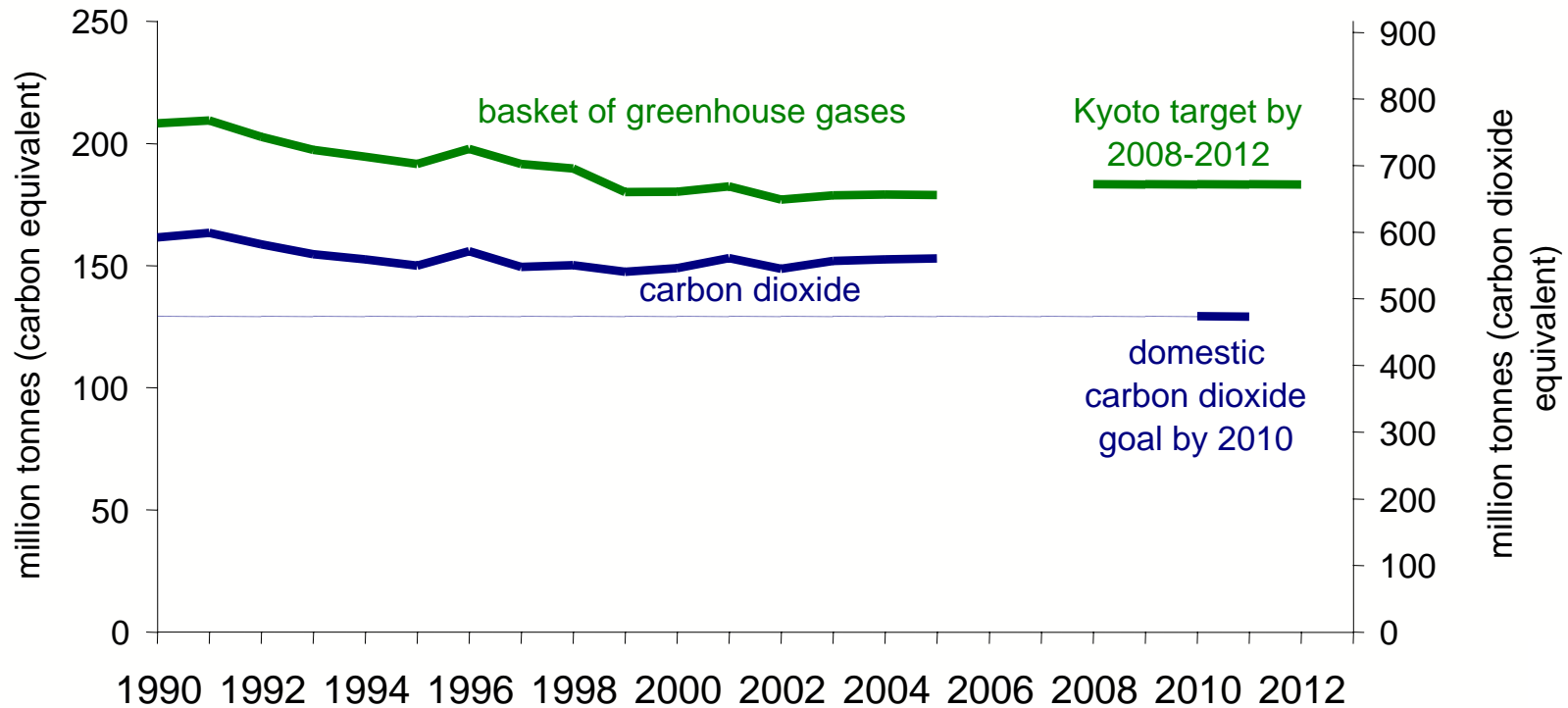
- Kyoto target – all greenhouse gases
 - 12.5% below 1990 levels by 2008-12
- National goal – CO₂
 - 20% below 1990 levels by 2010
- Long-term goal – CO₂
 - 60% below current levels by 2050



UK GHG Emissions 1998-2012

Figure 1: Emissions of greenhouse gases: 1990-2012

United Kingdom



Note: Estimates for 2005 are provisional

Source: netcen



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UK Climate Change Measures

- Strengthen international frameworks (UNFCCC, G8, APP)
- New UK climate legislation to make goals the law
- 10% renewable energy by 2010.
- Energy White Paper
- EU/US clean energy dialogue
- Official UK information exchanges with California, New England, others
- Government office estate will go carbon neutral by 2012
- Appointment of John Ashton as Special Representative for Climate Change
- European Trading Scheme....



European Union Emissions Trading Scheme



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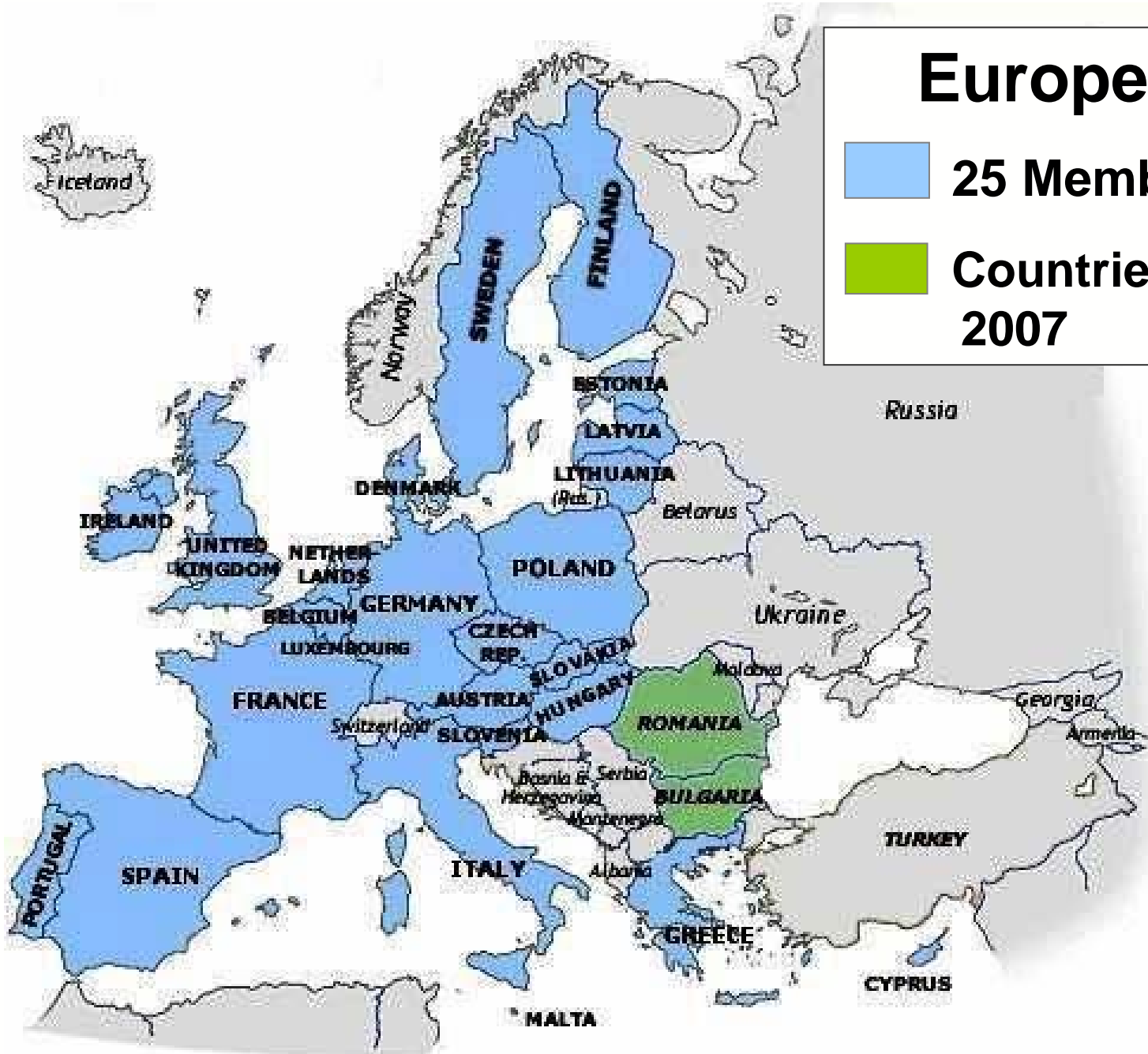
European Union



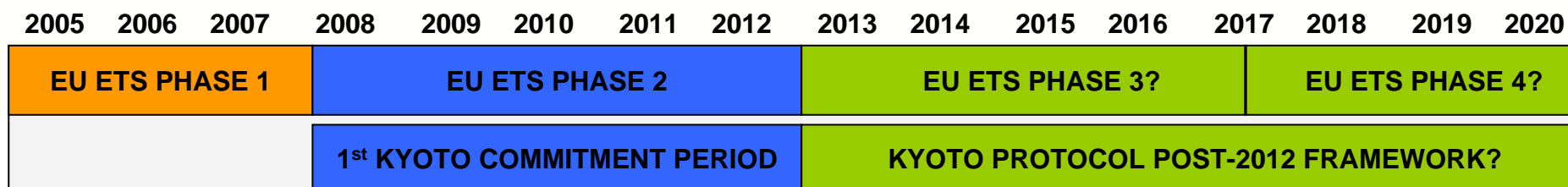
25 Member States



Countries to join EU in 2007



EU ETS Timeline



March 2000 - EU announces decision to develop scheme

October 2003 - 'EU ETS Directive' enters into force

January 2005 - EU ETS commences

- Phase 1 EU ETS– 2005-2007 'learning phase'
- Phase 2 EU ETS– 2008-2012 'Kyoto Commitment Period'
- Phase 3 and beyond....



Sector Coverage

- Covers CO₂ emissions from combustion processes (approximately 50% of EU CO₂ emissions, 30% of EU greenhouse emissions)
- Covers approx 12,000 installations across the EU from these sectors:
 - Electricity generators
 - Other combustion installations (heat & steam production)
 - Mineral oil refineries
 - Iron and steel production and processing
 - Cement & lime
 - Glass & ceramics
 - Pulp & paper sector



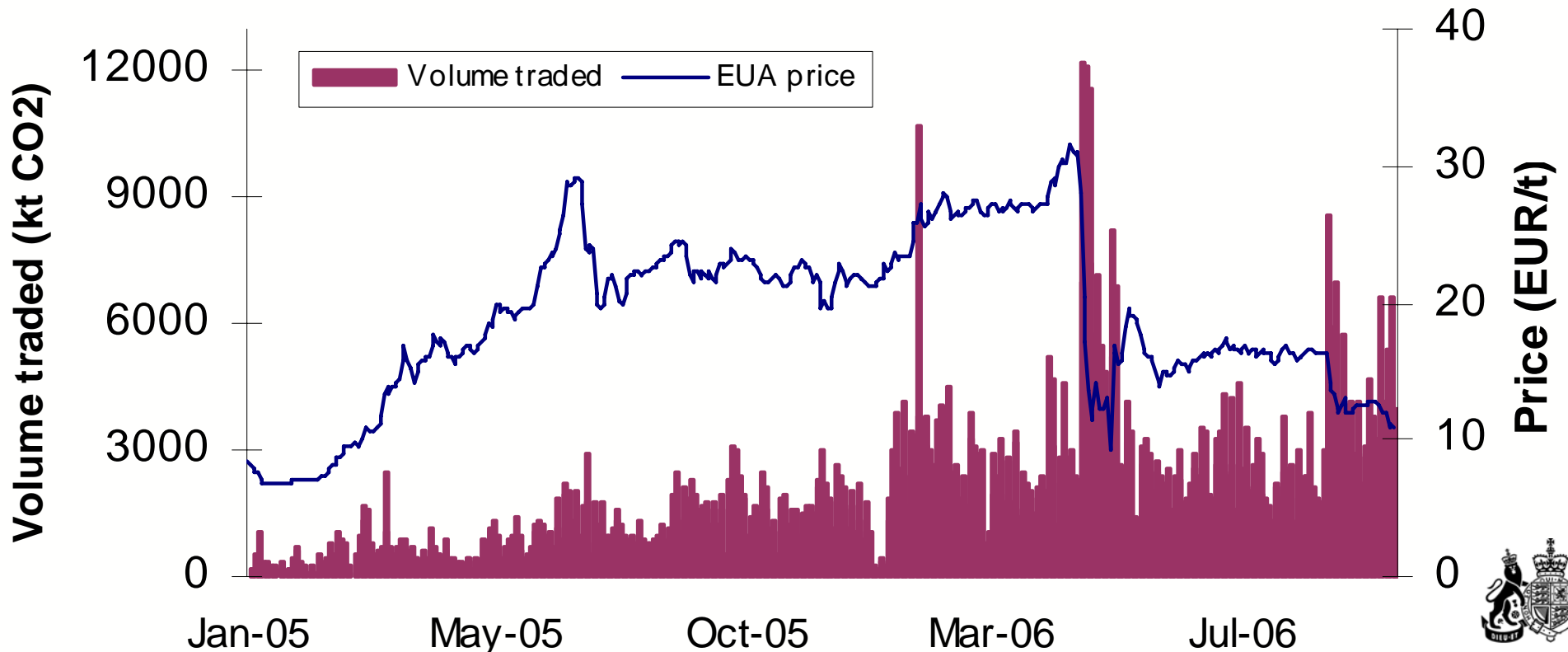
Allocation of Allowances

- National Allocation Plan (NAP) sets out the total number of allowances to be issued and distributed to national installations
- Member States may auction up to 5% of allowances for Phase I, up to 10% for Phase II
 - Only 4 Member States planned to auction in Phase I, more States likely to in Phase II
- Majority of allowances allocated for free
 - Member States used a range of methods for allocation – including historical emissions, projected emissions, sector benchmarks etc



EU ETS Allowance Price

Carbon Market Price Indicator (Jan 05 - Nov 06)



Impact of EU ETS to date, Next Steps...

- Very high compliance in first year
- Improved emissions data across Europe
- Internalising cost of carbon in price of electricity generation
- Behavioural change – mainstreaming?
- Phase II begins 1 January 2008
- Expanding the scheme to additional gases or sectors
 - Aviation, Surface Transport



Summary

- Emissions trading potentially effective in reducing emissions and will form core of UK and EU climate change policy into the future
- Allocation methodologies need to recognise that businesses have better information than public officials on their emissions reduction potential - and emissions reductions often easier to achieve than anticipated by either
- Impacts on market of including non-CO2 greenhouse gases need to be carefully considered

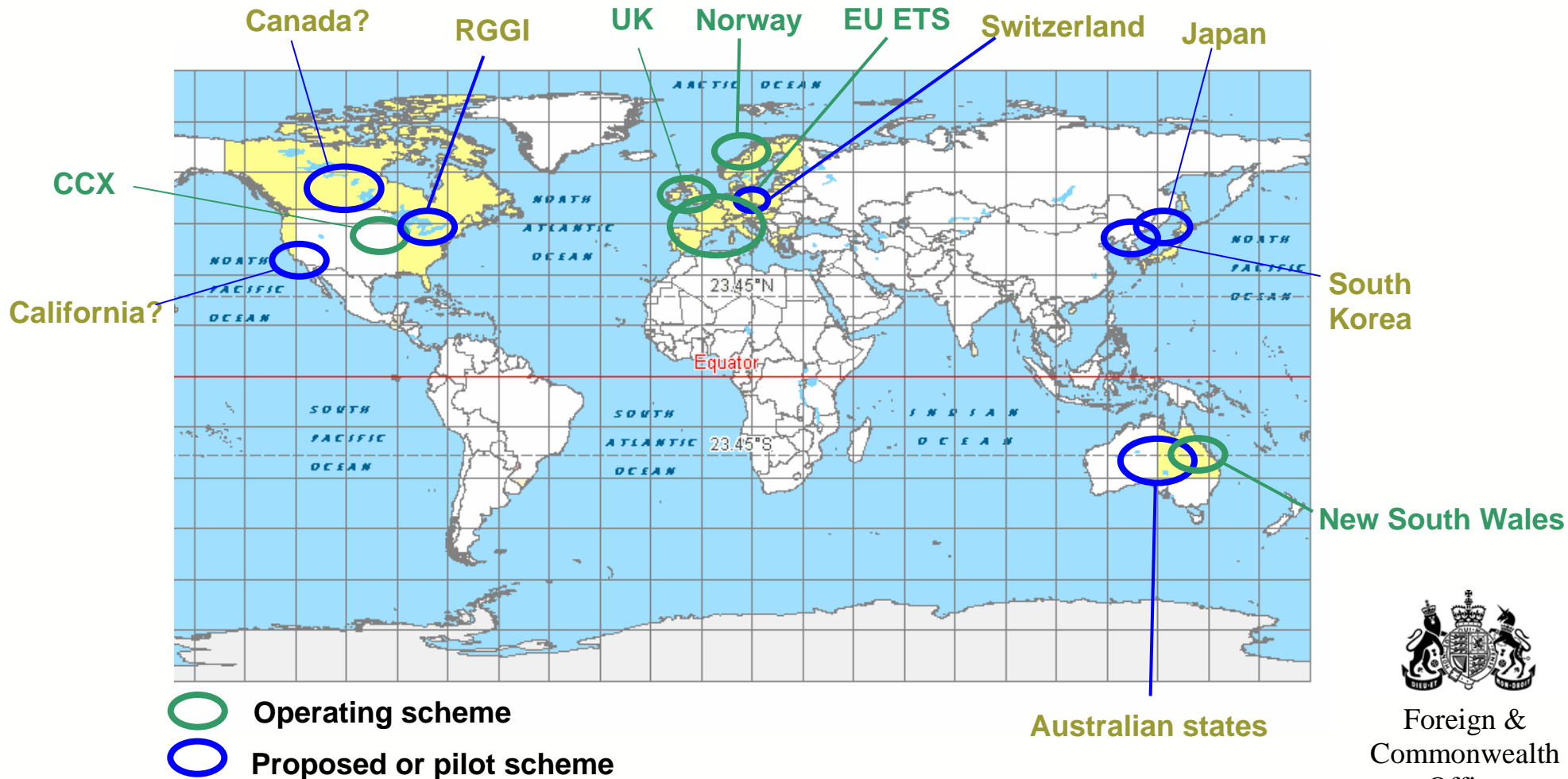


International emissions trading scheme



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Domestic Emissions Trading Schemes Operating or Proposed





Linking emissions trading schemes

Why link emissions trading schemes?

- Increase the size and liquidity of the market and the number of low-cost abatement options available
- Consistent with multi-lateral approach to tackling climate change
- Schemes do not have to be identical to link - a degree of harmonisation should be encouraged





Linking emissions trading schemes

How could we link schemes?

- Direct linking: trading can occur both *within* and *between* different schemes
 - Bilateral linking: two way linking - mutual recognition of allowances between trading schemes
 - Unilateral linking: one-way linking – where units from one scheme can be used for compliance in another scheme, but not vice versa.
- Indirect linking: linking domestic schemes to registries/mechanisms and systems that generate credits from projects (e.g. CDM) etc

If the aims and designs of two different schemes vary significantly unilateral or indirect linking might be more acceptable.



For further information

Email:

- james.reilly@fco.gov.uk

Website

- www.britainusa.com
- www.defra.gov.uk

