



Governor's Action Team on Energy and Climate Change
State of Florida

Governor's Action Team for Energy and
Climate Change
Phase II Process

*Cap and Trade
Technical Working Group (TWG)
Meeting #4
April 25, 2008*

Welcome and Introductions

- Action Team TWG Members
- Florida Department of Environmental Protection
- Members of the Public
- Center for Climate Strategies

Agenda

- Introductions
- Purpose and Goals
- Review and Approval of Call #3 Summary
- Briefing on European Union Cap and Trade Program (Jill Duggan, UK)
- Discussion – C&T Sector Coverage
- Briefing on Carbon Tax (Warren Bell, British Columbia)
- Review of the FL C&T Catalog of States' Actions
- Review of Next Steps
- Agenda, Date and Time for Next Meetings
- Public Comments
- Announcements

Purpose and Goals

- To develop a comprehensive Energy and Climate Change Action Plan that will fully achieve or surpass Executive Order targets for statewide greenhouse gas reductions specified in Executive Order 07-127, including:
 - guidance on the design of a market-based emissions allowance trading program,
 - design of programs to further enable energy conservation
 - closer examination of emissions reduction opportunities offered by new technologies
 - an examination of revenue impacts of emissions reduction policies within the transportation sector
 - consideration of a low-carbon fuel standard
 - further consideration of the organization of Florida's state government to foster the development of a low-carbon energy market in Florida, and
 - other emissions reductions actions

Technical Work Group Roles

- Assist Climate Action Team
 - Identify full range of potential state actions
 - Identify suggested priorities for analysis
 - Suggest straw policy designs
 - Assist with analysis, development and review of options
 - Assist with development of policy alternatives
 - Assist with input to and review of Action Team reports
 - Review and assist with the state GHG inventory and forecast

Approval of Call #3 Summary

- Review draft meeting summary for Cap and Trade TWG meeting #3
- Consider any corrections or additions to meeting summary
- Accept meeting summary with agreed upon changes

Sector Contributions to Florida's GHG Emissions

FLORIDA'S 2005 CO₂ EMISSIONS (MMT)		
Sector	Direct Emissions	Share
Residential	1.96	1.0%
Commercial	5.36	2.0%
Transportation	114.08	44.0%
Industrial	13.67	5.0%
Electricity	124.06	48.0%
Total	259.13	

European Union C&T Overview

Jill Duggan is Head of International Emissions Trading for the United Kingdom Department of Environment, Food and Rural Affairs (DEFRA)

Jill Duggan is Head of International Emissions Trading for the UK Government. She has advised U.S. states developing cap and trade programs explaining the lessons learned over the last 5 years, including a presentation to the Florida Action Team last year.

She has led the development of voluntary and mandatory cap and trade programs for the UK. She also led the development of the electronic carbon trading software for the UK and 15 other European States and the proposal for a UK Government standard for the voluntary offsetting market.

Jill has an MSc in Environmental Economics from University College, London.

Emissions Trading - A Successful policy tool for Developed Countries?



Jill Duggan

Florida Climate Action Team
Conference Call

April 2008



UK context

- Political consensus – all major political parties agree that tackling climate change is an urgent priority
- Emissions trading has a central role in reducing emissions
 - environmental certainty,
 - lowest cost emissions reductions
- Climate Change Bill – independent Climate Change Committee to advise on targets and effort from sectors, enabling legislation for new measures such as emissions trading
- Other complementary mitigation measures also used and further measures required:

Other policies - eg

- New homes zero carbon by 2016
- UK only trading systems – Carbon Reduction Commitment for commercial and public sector not covered by ETS
- Climate Change Levy
- Local authority initiatives – eg low emissions zone, congestion charge

Development of Emissions Trading Policy in the UK

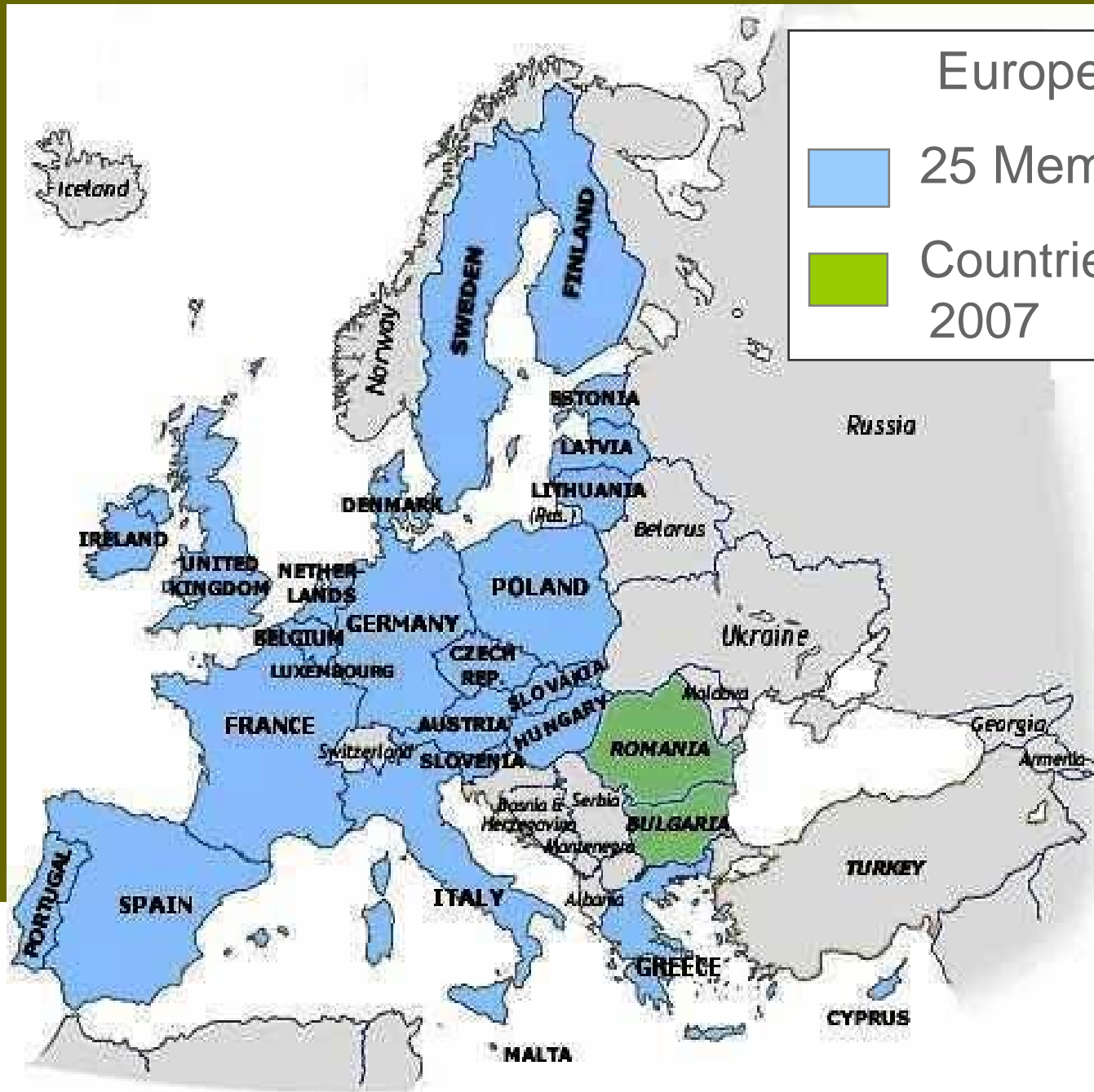
UK Emissions Trading Scheme 2002-2006

- Voluntary
- Participants received financial incentives for taking on binding targets
- Bid in descending clock auction for emissions at incentive prices
- 31 direct participants bid to reduce 5.96 million tonnes 18 million tonnes of CO₂e over 5 years.
- 6,000 Climate Change Agreement participants could purchase allowances to meet their targets

What we learned from the voluntary scheme

- Early action helped put the City and ancillary services in a good position for emissions trading – verifiers, lawyers, consultants
- Difficult to establish BAU and therefore real additional emissions reductions
- Need tough targets and scarcity to achieve a market

EU Emissions Trading



European Union

- 25 Member States
- Countries joined EU in 2007

Key features of EU ETS

- “Cap and trade” scheme covering CO₂ emissions from combustion processes (approx 46% of EU CO₂ emissions)
- Phase 1 EU ETS - 2005-2007 - ‘learning phase’
- Phase 2 EU ETS - 2008-2012 - ‘Kyoto Commitment Period’
- 1 European Union Allowance (EUA) = 1 metric tonne of CO₂
- Allowances freely tradable throughout 27 EU Member States
- Most allowances allocated free - range of methods, including historical emissions, projected emissions, sector benchmarks etc
- Limited use of Kyoto project credits

Process for National Allocation Plans – Phase I

- EU Member States follow Directive in producing National Allocation Plans
- Requires stakeholder consultation
- Within rules prepare own plans for cap and how to allocate to covered sectors
- Present plan to Other Member States
- Submit plan to European Commission
- Commission assesses plan against Directive – in Phase I cut allocations by 220 million tonnes per annum against proposals
- Final allocation agreed

Key problems with Phase I

- Lack of data
- Free allocation led to lobbying
- Lack of consistency across member states – led to lowest common denominator
- Lack of transparency in Member States' Plans
- Staggered start dates – plans still being approved in 2006
- Volatile prices
- Poor handling of reconciliation data
- Lobbying, lack of data and lack of transparency on other Member States plans led to OVERALLOCATION

Process for National Allocation Plans – Phase II

- Basic as for Phase I but:
- Agreement on ‘scope’ definitions – including significant additional sources
- Agreement on ‘small installations’ aggregation rules
- Template for submission of NAPs
- More harmonisation on rules
- Good verified data from 2005 verified emissions
- Greater transparency, more experience – Commission still took around 200 million tonnes a year out of the scheme

What's happened so far in Phase II

- European Commission used 2005 verified emissions data to assess proposed Plans for Phase II – cut out overallocation
- Phase II price –had been tracking Phase I price but stabilised as Commission decisions on plans emerged – stable around €20 a tonne
- Greater acceptance on the need for centralisation and harmonisation – and for a greater use of auctioning

Is it successful as a policy?

- Emissions Trading works – Point Carbon Survey of participants in 2006 found 15% took future cost of carbon into account for investments
 - By 2007 this had risen to 65%
- 27 Member States have put in place the institutional framework for Trading
- 3 from outside the EU have linked to EU ETS – Norway, Iceland and Lichtenstein
- EU business has gained experience that will help them in the low carbon economy

Is this policy a success for the environment?

- Trading allows more ambition than acting alone – eg UK set 2008-2012 EU ETS cap 13% below 2005 verified emissions
- Ellerman et al found evidence of abatement in 2005 but will be easier to judge for 2008-2012 period
- No real evidence of leakage yet – and as the global carbon market develops less chance of leakage in the future
- Helped generate \$17.5 million investment in CDM carbon abatement projects in the developing world in 2007

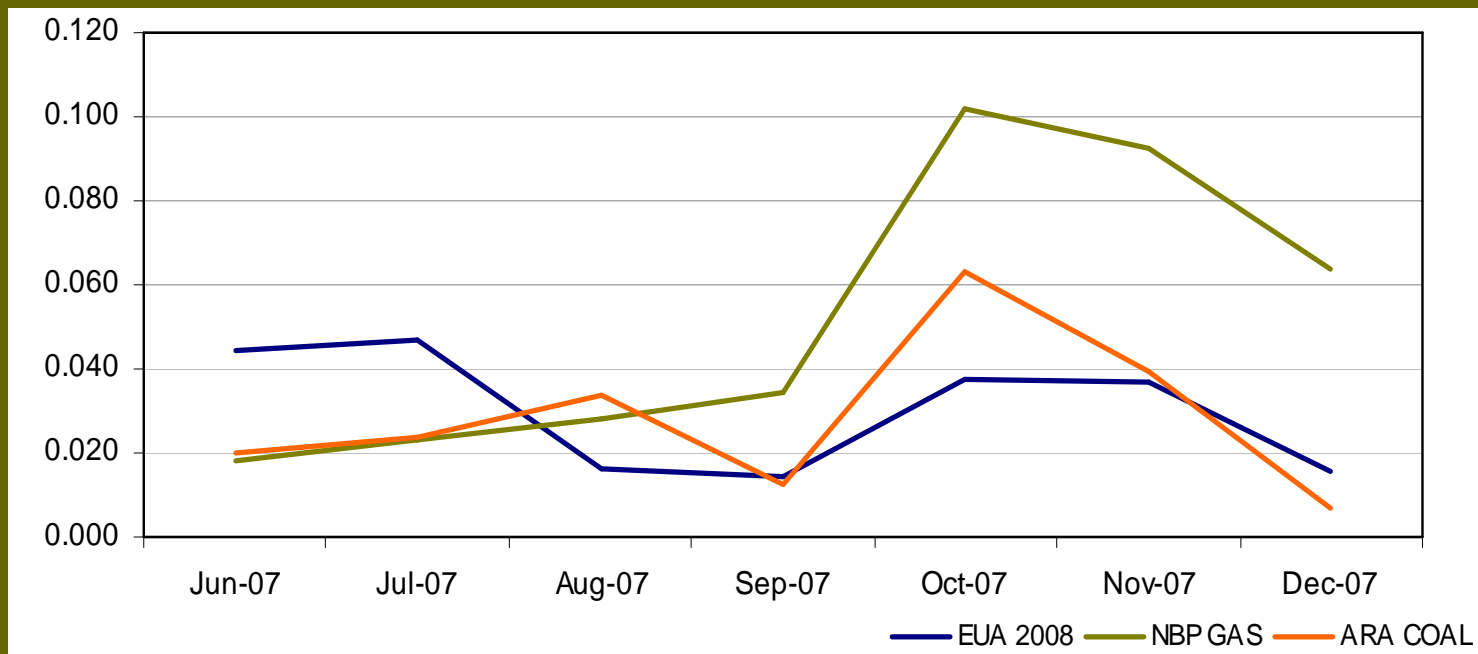
Is this policy a success as a market?

- Around 8 million EUAs traded a day
- Stable 2008-2012 price – around €20 a tonne
- 2007 Total financial value: €40bn – around \$63 bn
 - EU ETS 70%
 - CDM primary 15% CDM secondary 14%
 - JI 1%
 - Other 0.5%
- CDM increased from 563Mt and €3.9bn in 2006 to 947Mt and €12bn in 2007 (68% increase in volume, 199% increase in value)

EU ETS – Volumes and Prices

	Volumes (Millions)			Phase II Prices (EUA 2008, €)		
	Total	Average Daily	Highest Day	Average close	Lowest	Highest
Jan-08	178	7.7	16.0	21.02	19.10	23.70
Feb-08	167	8.0	16.0	20.66	18.90	21.70
Mar-08	130	7.6	12.5	21.75	20.63	22.58
2007	1441	5.5	12.7	19.48	12.25	25.28

The Phase II carbon price is less volatile than other related commodity markets...



Lessons learned – European Commission Proposal for 2013 and beyond

- Central cap – linear decrease from 2008-12 average annual emissions
- Full auctioning for electricity generators and CCS (except heat for CHP – full auctioning by 2020)
- Community wide rules for free allocation. Sectors share of allocation will be in line with 2005-7 verified emissions
- Full auctioning for sectors by 2020 (unless carbon leakage)
- Tighter limits on use of project credits in EU until

Contact on Emissions Trading Policy

- Jill.duggan@defra.gsi.gov.uk

Cap and Trade Sector Coverage

Potential Cap and Trade Sectors:

- Power Sector (electric generation, importation, consumption, etc.)
- Large Stationary Sources (industrial and large commercial sources)
- Fossil Fuel Extraction, Transmission and Processing
- Residential and Commercial Fuel Use (non-electric fuel consumption for small stationary sources)
- Transportation Fuel Use (fuel consumption for mobile sources)
- Transportation Sources (large vehicle fleets, ships, trains, aircraft)
- Waste Management (incinerators, landfills, wastewater treatment plants)
- Agriculture (CAFOs, some large crops)
- Economy Wide

Carbon Tax Briefing

Warren Bell is the Manager of the Climate Change Section in the British Columbia Ministry of Water, Lands and Air Protection and has been responsible for leading the climate change file in the BC government for the past seven years. Warren represents BC in the national climate change process and has worked closely with the Greenhouse Gas Forum since early 1997.

Warren is closely involved in a number of emission trading initiatives in Canada, and his current responsibilities include:

- co-chair of the federal-provincial Domestic Emission Trading Working Group and
- co-chair of the Baseline Protection Board.

The Greenhouse Gas Emission Reduction Trading (GERT) Pilot was launched from Warren's office in 1998, and Warren was Pilot Manager until February of this year. Warren was also a member of the Tradeable Permits Working Group and the Credit for Early Action table – two of the issue tables in Canada's national climate change process.

Warren has degrees in economics from the Universities of Victoria and Western Ontario.

C&T Catalog of State's Actions

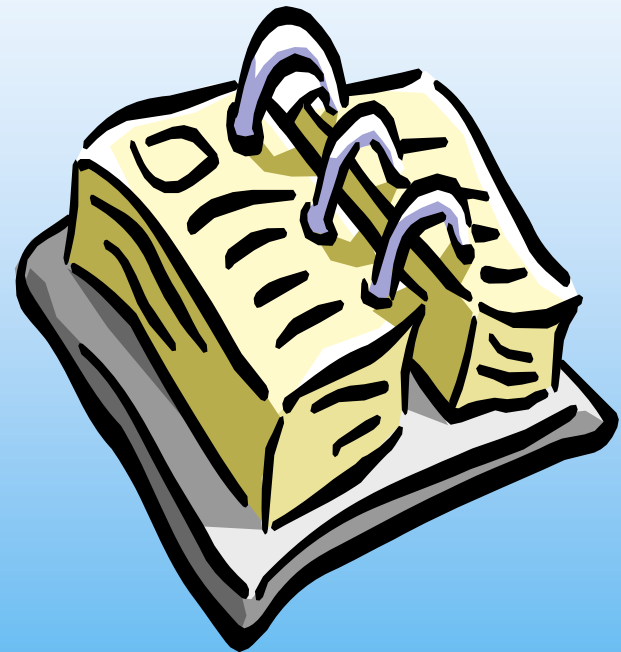
- Please refer to separate catalog documents
 - Catalog (table)
 - Short descriptions of policy options
- Excerpted from larger all-sector catalog

Next Steps

- Today- Narrow Sector Scope
- Today - Hear briefings on EU, Carbon Tax
- Next TWG Call
 - Recommend Priorities Among Other Policies
 - Review Updated Inventory and Forecast
 - Offer last early guidance to modelers

Next Action Team Meeting

- Agenda:
 - Review and approve policy option priorities for development and analysis
 - Review updated Inventory and Forecast
 - Review progress on cap-and-trade design issues
- May 29-30, 2008, Tallahassee



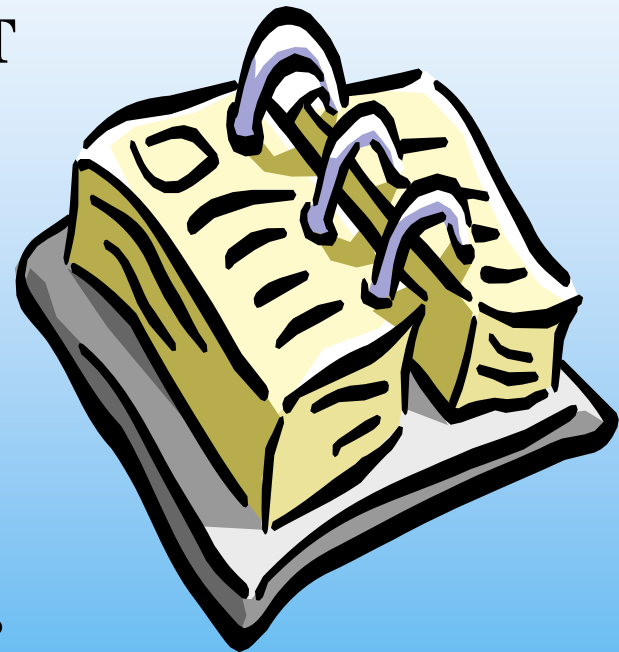
Timing – Action Team Meetings

Date	Action
February 1, 2008	1 st Action Team meeting
March 17, 2008	2 nd Action Team meeting
May 29-30, 2008	3 rd Action Team meeting
July 9, 2008	4 th Action Team meeting
August 6, 2008	5 th Action Team meeting
September 5, 2008	6 th Action Team meeting
October 1, 2008	Phase II Final Report due
Between Action Team Meetings	TWG conference calls and meetings

Next TWG Meetings

(proposed)

- **All times 2:00 PM – 4:00 PM EDT**
- **Wednesday** **May 7, 2008**
- *Friday* *June 13, 2008*
- *Wednesday* *June 25, 2008*
- *Friday* *July 18, 2008*
- *Tuesday* *July 29, 2008*
- *Friday* *August 15, 2008*
- *Tuesday* *August 26, 2008*



Public Input, Announcements