



Australian Government  
Department of Resources, Energy and Tourism



**Australia's Low Emissions Coal Initiatives**  
Margaret Sewell  
Presentation to  
UK/Australia Clean Coal Technologies Symposium

**19 March 2009 – Brisbane**

# Australian Government Climate Change Policy Developments

- Kyoto Protocol: Australia ratified in 2007
- Committed to greenhouse reduction targets
  - Kyoto: 108% of 2000 levels
  - Medium term: at least 5-15% reduction by 2020
  - Long term: 60% below 2000 levels by 2050
- Comprehensive package of domestic initiatives:
  - Carbon Pollution Reduction Scheme
  - Renewable Energy Target
  - National Low Emission Coal Fund - \$500 million
  - Renewable Energy Fund - \$500 million
  - Energy Innovation Fund - \$150 million
- Global Carbon Capture and Storage Initiative
- New measures complement and build on existing measures.



# Domestic Low Emissions Initiatives

- World leading work on geological storage assessment and storage legislation
- CS Energy oxy-fuel – world first retrofit
- Otway pilot CO2 storage project
- Hazelwood lignite drying and PCC
- PCC pilot projects – Munmorah, Tarong, Loy Yang in Australia and Gaobeidian in China
- Proposed 100,000-300,000 tpa PCC plants in Victoria and NSW
- Proposed coal gasification research centre in Qld
- Proposed IGCC plus CCS demonstration project (ZeroGen and Wandoan)
- Lignite Integrated Drying and Coal Gasification (IDGCC) 4-500MW
- \$110m for CCS in Victoria



# Carbon Pollution Reduction Scheme

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- CPRS White Paper released on 15 December 2008
- <http://www.climatechange.gov.au/whitepaper>
- Medium-term target 5% to 15% of 2000 levels by 2020
- Emissions trading scheme (ETS) based on a 'cap and trade' system to commence 1 July 2010
- ETS applies to all Kyoto greenhouse gases and most sectors including landfill and fugitive emissions
- Agriculture initially excluded
- Transitional arrangements
  - the Emissions Intensive Trade Exposed (EITE) Assistance
  - the Electricity Sector Adjustment Scheme
  - the Climate Change Action Fund



# CPRS – Emissions Intensive Trade Exposed (EITE) Industries

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- Transitional assistance provided to trade exposed industries due to the risk of carbon leakage
  - Emissions intensity test (revenue or value added)
  - Trade exposure test
- Rates of assistance based on average emission levels for industry sectors
  - 90% free permits for 2,000t/\$m of revenue or 6,000t/\$m value added
  - 60% free permits 1-2,000/\$m revenue or 3-6,000/\$m value added
  - Reduced by 1.3% pa



# CPRS - Climate Change Action Fund (CCAF)

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- CCAF provides assistance of \$2.45 billion over five years to business, regions and workers suffering disproportionate impacts.
- Four streams
  1. Information to business and community organisations (\$130m)
  2. Rebates for low emissions investments (\$1,400m)
  3. Structural adjustment assistance (\$200m)
  4. Assistance for high emission coal mines
    - Coal mining Abatement Fund (\$250m)
    - Coal mining Transitional Assistance (\$500m)



# CPRS – Electricity Sector Adjustment Scheme

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- Transitional assistance valued at around \$3.9 billion (in the form of non-transferable free permits) is being made available to the most emissions-intensive power generators.
- A reflection that these generators will not be able to pass on the full carbon cost
- Review will assess any windfall gain risks.



# Energy White Paper

- **Need for an Energy White Paper**
  - Tighter oil supply and demand balances affecting prices
  - Need to reduce global greenhouse gas emissions
  - Carbon Pollution Reduction Scheme targets through emissions trading and renewable energy targets
  - Need to ensure Australia's longer energy security and prosperity



# Key Policy Areas

- **Key aspects of the White Paper**
  - International energy
  - Realising Australia's energy resources potential
  - Legal, institutional and governance frameworks
  - Investment, competitive markets and structure reform
    - Electricity and gas markets
    - Transport
  - Maximising the value of technology in the energy sector
  - People, workforce and Indigenous



# International CCS Initiatives

- Internationally there is growing recognition of the part CCS will need to play in the global response to global warming
  - CCS is necessary to address current and future stationary CO<sub>2</sub> emitters
  - IEA expects CCS to contribute between 5 – 10 Gt of CO<sub>2</sub> emissions reductions by 2050
- There is global recognition of the need to have a diverse portfolio of industrial-scale CCS projects by 2020
  - IEA and CSLF have recommended, and the G8 endorsed, a target of 20 industrial scale, fully integrated projects committed by 2010 for broad deployment by 2020
- Australia believes the level of concerted international action required to develop this portfolio is high, requiring a new approach and a new mechanism
  - but one which complements and leverages the work in existing international forums (in particular, the IEA/CSLF) and other international partnerships.

# Global Carbon Capture and Storage Initiative (GCCSI)

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- On 19 September, Prime Minister Rudd announced the Global Carbon Capture and Storage (CCS) Initiative, with a commitment of up to \$100 million per annum to a Global CCS Institute.
- The Institute's mandate and objective is to accelerate the global adoption of commercially and environmentally sustainable CCS.
  - It will act as a catalyst for accelerating projects, through facilitating demonstration projects and identifying and supporting necessary research, including regulatory settings and frameworks.
- Initially it will drive co-operation to deliver a diverse portfolio of at least 20 integrated commercial scale projects, operating by 2020.



# GCCSI Preparatory Meeting

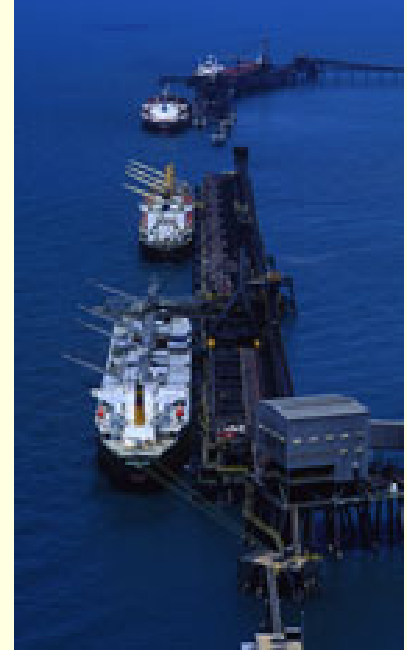
- On 24 and 25 November 2008, Australia hosted a Preparatory meeting of the Global Institute in London.
- The meeting was attended by 167 delegates, from 18 governments, 43 companies and 23 NGOs / Institutions / Associations.
- Attendees supported the Institute focusing on
  - large scale demonstration projects
  - project financing
  - collecting, interpreting and disseminating CCS project information
- Founding membership is open to all governments, industry and NGOs out to the launch of the Institute.



# The GCCSI is moving forward

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- Mr Nick Otter has been appointed as the interim CEO and my Department is providing an interim support structure of some 20-25 officers.
- A meeting of Foundation Members is scheduled for 16-17 April in Canberra.
- The permanent form of the Global Institute will be finalised and become operational later in the year.



# Other International Initiatives

- Australia continues to make a major contribution to other international initiatives that support practical greenhouse responses, eg the IEA, the CSLF, APEC, the Asia Pacific Partnership, and M2M.
- Our work in these forums is complemented by our formal and informal bilateral relationships.
- Key outcomes include:
  - International support for demonstration projects in Australia, eg Japan in Callide A Oxyfuel project in Queensland, China in IDGCC in Victoria
  - Australian leadership in international projects, eg post combustion capture project in China, ECBM with Japan and China, geological storage assessment in China.



# Further Information

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