



Australian Government

Department of Resources, Energy and Tourism

# Australian Government's Policy Approach and Support for Carbon Capture and Storage

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# Why Carbon Capture & Storage?

- Fossil fuels share of world energy demand will increase from 80% to 84% in 2050 (International Energy Agency -IEA)
- CCS will need to account for at least 20% of the abatement effort required to cut greenhouse gas emissions by 50% of 2000 level by 2050 (IEA)
- For Australia, CCS will play an even larger role in cutting emissions by 60% by 2050
  - coal - 80% of electricity, largest export
  - LNG exports expanding
  - energy demand expanding reflecting strong long term population and economic growth prospects

# Australian Government CCS Initiatives



- Australian Government CCS initiatives are an integrated part of greenhouse response (emissions trading, renewable energy target) and energy policy (Energy White Paper). CCS initiatives include:
  - Clean Energy Initiative
  - National Low Emissions Coal Initiative
  - CCS Flagships Program
  - National Carbon Mapping and Infrastructure Plan
  - Offshore CCS legislation
  - Global CCS Institute
  - Low Emissions Technology Demonstration Fund
  - Research, Development and Demonstration
  - Complementary programs for renewable energy

# CCS Flagship Program

- \$2.0 billion to build at least two, and up to four, industrial-scale carbon capture and storage projects in Australia
  - to support the non-commercial costs of demonstrating and deploying large-scale integrated CCS projects
  - part of a portfolio of CCS projects to underpin widespread commercial deployment.
- An independent assessment panel will assess projects as part of a competitive selection process.
- Projects to be shortlisted late 2009 and final decision made mid-2010.



## National Low Emissions Coal Initiative

- Key Goal - CCS technologies to be deployed in Australia from 2020 in order to achieve large cuts in emissions while protecting the contribution that coal makes to energy security and economic wellbeing.
  - Stakeholders engaged to develop and implement a coordinated national approach.
  - Australian Government - \$400 million to support medium scale CCS demonstrations, national research program, and the development of storage sites and CO2 transport infrastructure.
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# Australian Demonstration Projects

## Pilot Projects

- Otway sequestration project (Vic)
- PCC Pilots - Loy Lang, Munmorah, Tarong, Hazelwood, China
- Proposed coal gasification pilot facility

## Medium Scale Demonstrations

- Proposed PCC demonstration projects for brown coal and black coal
- Oxyfuel retrofit at Callide A (Qld)

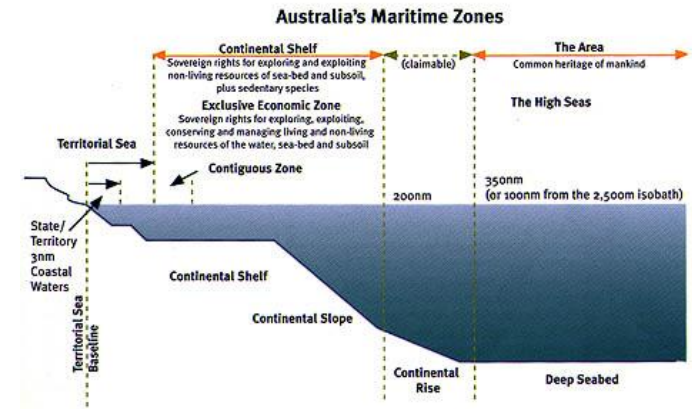
## Large Scale

- CCS Flagships Program
- Commercial projects, eg Gorgon LNG, proposed coal chemical



# Commonwealth CCS Legislation

- The *Offshore Petroleum and Greenhouse Gas Storage Act 2008*
- Major features of the legislation:
  - Provides access and property rights for CCS activities that are similar to petroleum titles;
  - ensure safe and secure storage;
  - mechanisms for managing interactions with petroleum industry; and
  - Process for site closure and treatment of long term liability.
- Provide investment certainty.



# International Policy Context and Influences

- Australia is an active participant in international initiatives
  - Carbon Sequestration Leadership Forum (CSLF)
  - International Energy Agency
  - Asia Pacific Partnership on Clean Development and Climate
  - Asia Pacific Economic Cooperation (APEC)
  - Global Carbon Capture and Storage Institute
  - G8/G20/Major Economies Forum.
- Complementary formal and informal bilateral relationships.
- Key outcomes include:
  - Concerted international action on CCS
  - International support for demonstration projects in Australia
  - Australian participation in international projects



# Key Messages

- Australia is fully committed to reducing greenhouse gas emissions.
  - CCS will play a key role in Australia and internationally in achieving long term greenhouse abatement targets.
  - We have put in place a comprehensive package of measures to accelerate the development and deployment of CCS in Australia and internationally.
  - But there are still major challenges if CCS is to be available for widespread deployment from 2020.
  - International collaboration is very important in sharing learning opportunities and the transfer of technology and expertise.
  - Partnerships with industry are paramount to the success of these abatement efforts.
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