



Australian Government

Department of Resources, Energy and Tourism

Carbon Capture and Storage : Australian Government Policy Initiatives

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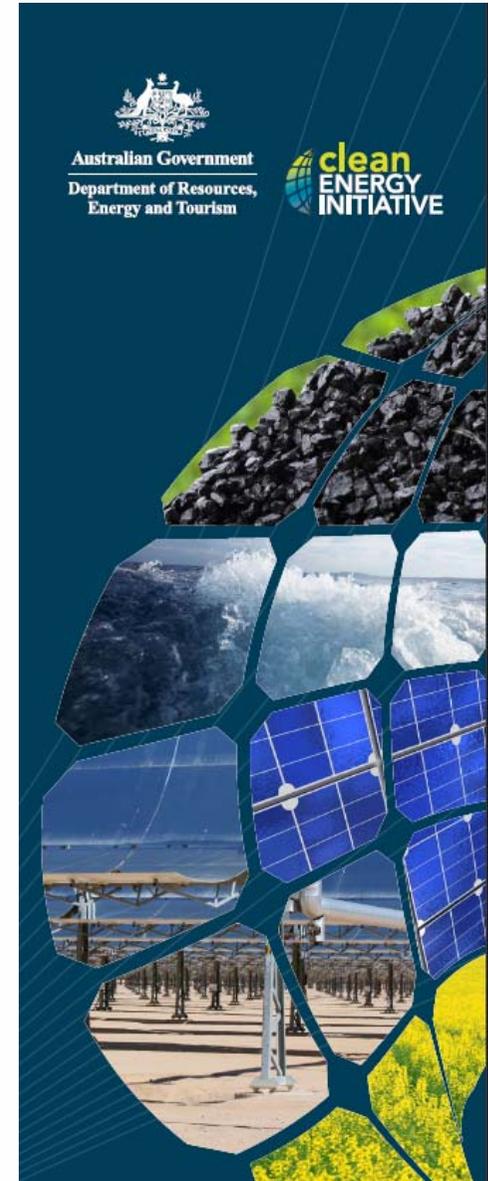


Domestic CCS Initiatives

- CCS Flagships program
 - National Low Emissions Coal Council
 - Carbon Storage Task Force Report
 - Australian National Low Emissions Coal R&D
 - Offshore Petroleum and Greenhouse Gas Storage Act 2008
 - Release of potential storage sites for exploration by industry
 - Extension of existing demonstration projects, R&D, CO2 Cooperative Research Centre
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Carbon Capture and Storage (CCS) Flagships Program

- The \$2 billion CCS Flagships Program was announced in the 2009-10 Budget and is part of the Australian Government's \$4.5 billion Clean Energy Initiative
- CCS Flagships aims to build at least two, and up to four, industrial scale CCS projects in Australia
- Supports the G8 goal of 20 by 2020
- Industry input into technology priorities and the criteria for assessing projects
- Independent Assessment Panel to assess projects
- 1000 MW low emission fossil fuel power generation





CCS Flagships Program

- Short-listed Projects December 2009:
 - **Wandoan**: 334MW Integrated Gasification Combined Cycle (IGCC) coal generation project aimed at sequestering 2.5MT CO₂ per year
 - **Zerogen**: 400MW IGCC coal generation project aimed at sequestering 2.0MT CO₂ per year
 - **Collie South West Hub** project aiming to sequester 3.3MT CO₂ per year from nearby industry
 - **CarbonNet** hub project aiming to sequester 3-5MT CO₂ per year from nearby industry
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CCS Flagships Program - Indicative Timeline

- Aug 09: State and Territory governments nominated projects they're prepared to support financially
- Aug - Oct 09: Independent Assessment Panel assesses projects
- Dec 09: Announcement of shortlisted projects
- Dec 09 – Jun 2010: Pre-feasibility studies undertaken
- Jun – Jul 2010: Independent Assessment Panel makes recommendations
- Aug 2010: Announcement of the projects to be funded
- 2010 – 2015: Front end engineering and design, construction and commissioning



National Low Emissions Coal Initiative

- \$400 million to accelerate the development and commercial deployment of technologies
 - Reduce emissions from coal-powered electricity generation, while securing the contribution that coal makes to Australia's energy security and economic wellbeing
 - Established the National Low Emissions Coal Council to advise on a strategy to ensure that low emissions technologies are demonstrated from 2015 and are available for commercial deployment by 2020.
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National Low Emissions Coal Strategy

- The National Low Emissions Coal Council delivered its report in September 2009
 - Key findings include that CCS applied to the stationary energy sector will enable a significant proportion of Australia's CO₂ emissions to be captured, transported and stored safely
 - The report highlights some of the challenges that we face in Australia in achieving the commercial deployment of CCS by 2020
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Timeline challenge for early deployment of CCS

Issues the rest of the world is looking at:

- Carbon Sequestration Leadership Forum (CSLF) Strategic Plan - a path for international CCS collaboration
 - based on CSLF and International Energy Agency (IEA) recommendations endorsed by the G8
 - Major Economies Forum released 10 Technology Action Plans in December 2009, including a CCUS TAP
 - IEA recently released the CCS Roadmap, outlining both the cost and the importance of commercial scale CCS deployment
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National Carbon Mapping and Infrastructure Plan - Australia

- To promote prioritisation of, and access to, national geological storage capacity and associated infrastructure requirements needed to accelerate deployment of CCS in Australia
- A Carbon Storage Taskforce was established to develop the Plan
- The plan was publicly released by the Minister on 8 December 2009, and is currently being considered by the Australian Government



Existing Demonstration Projects

- Post Combustion Capture (PCC) Pilots in Victoria, NSW and Queensland:
 - Loy Lang Project
 - Munmorah Project
 - Tarong Project
 - Oxyfuel retrofit at Callide A (Qld)
 - Otway sequestration project (Vic)
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Commonwealth CCS legislation

- *Offshore Petroleum and Greenhouse Gas Storage Act 2008* establishes a title system of access and property rights for the geological storage of greenhouse gas in offshore waters under Commonwealth jurisdiction
 - Major features of the legislation include:
 - title system similar to that used for petroleum;
 - ensuring safe and secure storage;
 - mechanisms for managing interactions with; petroleum industry; and
 - site closure and treatment of long term liability
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Acreage release areas

March 2009:

10 Areas in 5 Basins Released

