



Australian Government
Department of Resources, Energy and Tourism



Japan: Clean Coal Day 2010

Tuesday 7 September 2010

Australia's Low Emissions Coal Policies:
Driving towards 2020.

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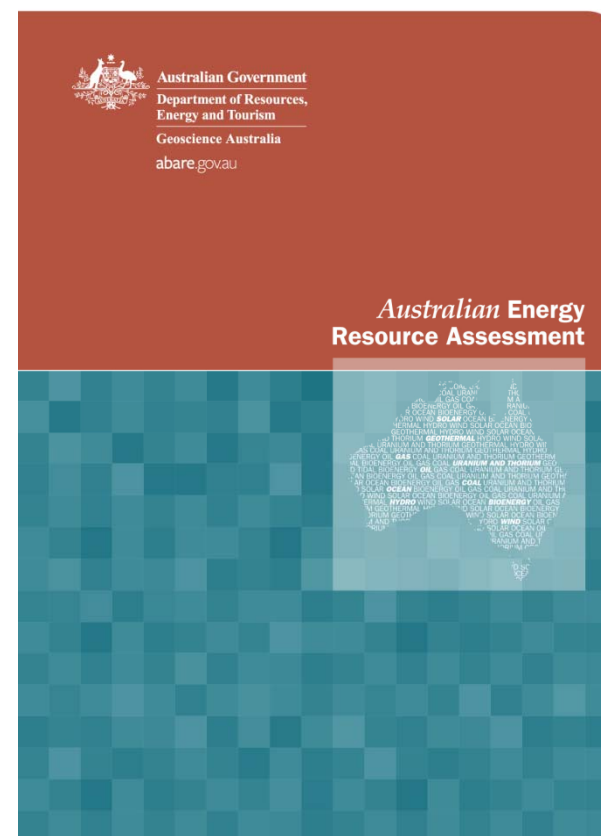


AUSTRALIA'S ENERGY FUTURE

Released on 1 March 2010

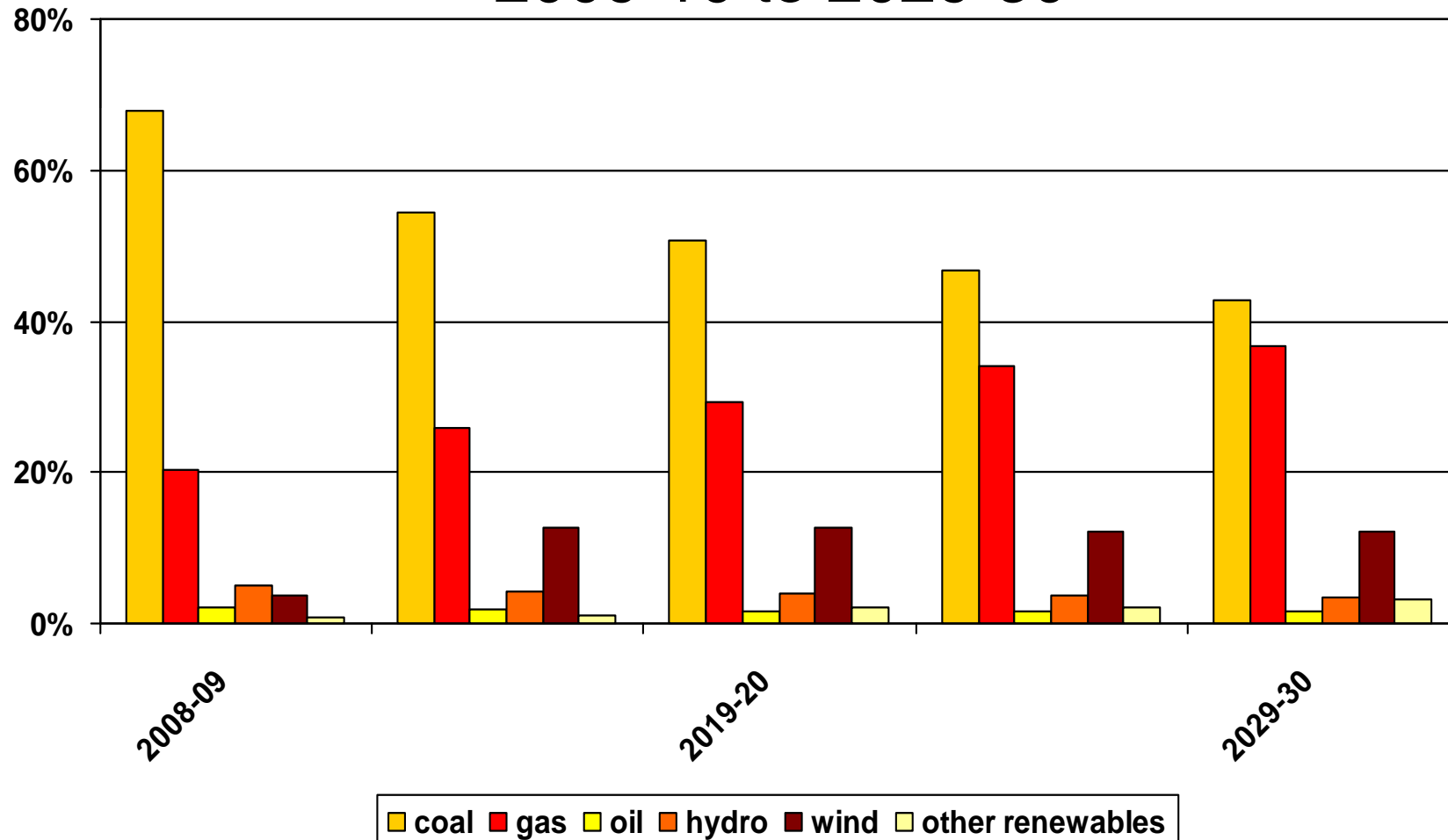
The Assessment examines identified and potential energy resources and considers the factors likely to influence Australia's energy future in a low-carbon economy to 2030.

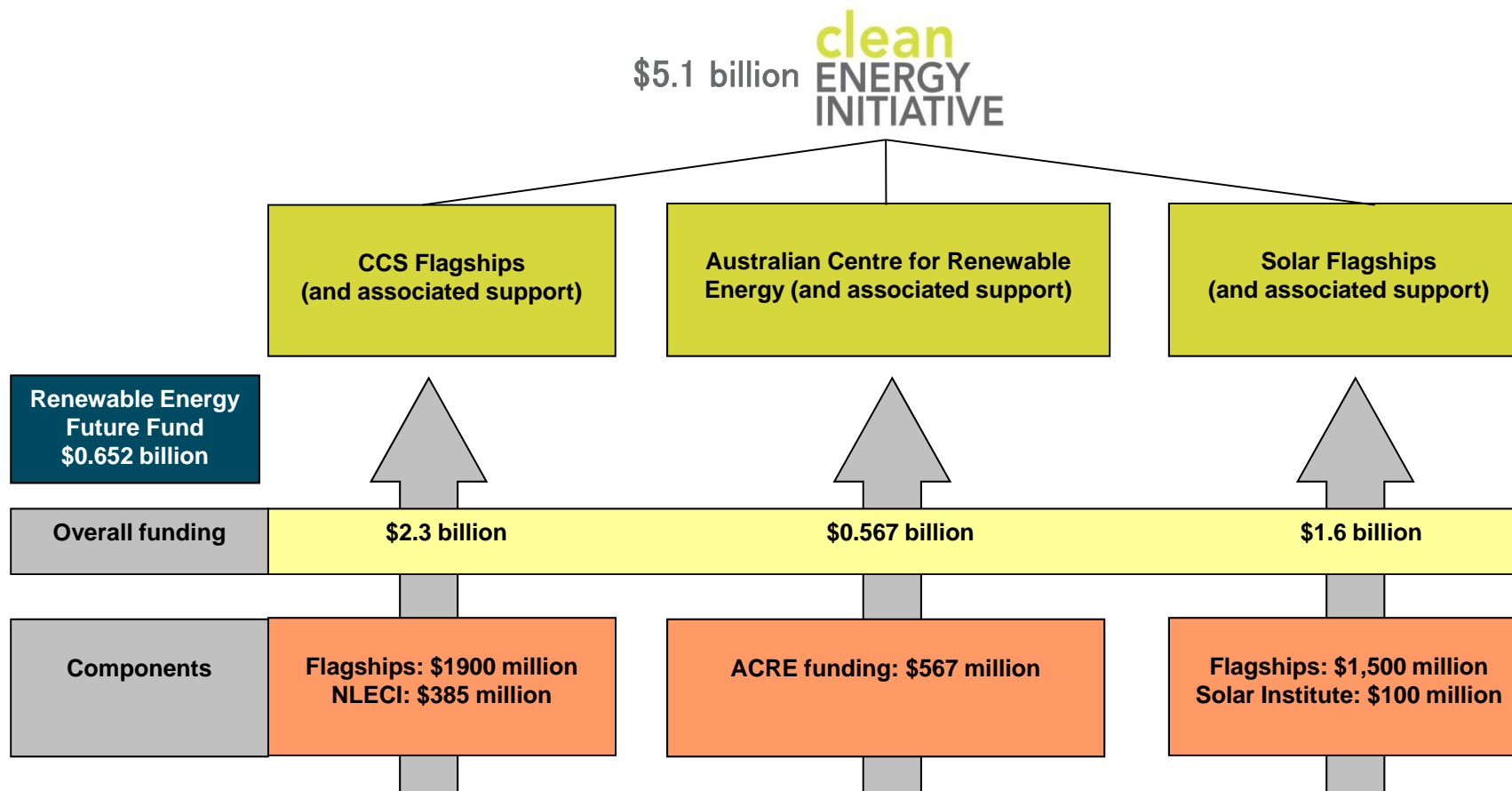
Further information may be obtained from the Geoscience Australia website;
<http://www.ga.gov.au>





ELECTRICITY GENERATION BY FUEL TYPE 2009-10 to 2029-30







REDUCING EMISSIONS FROM FOSSIL FUEL

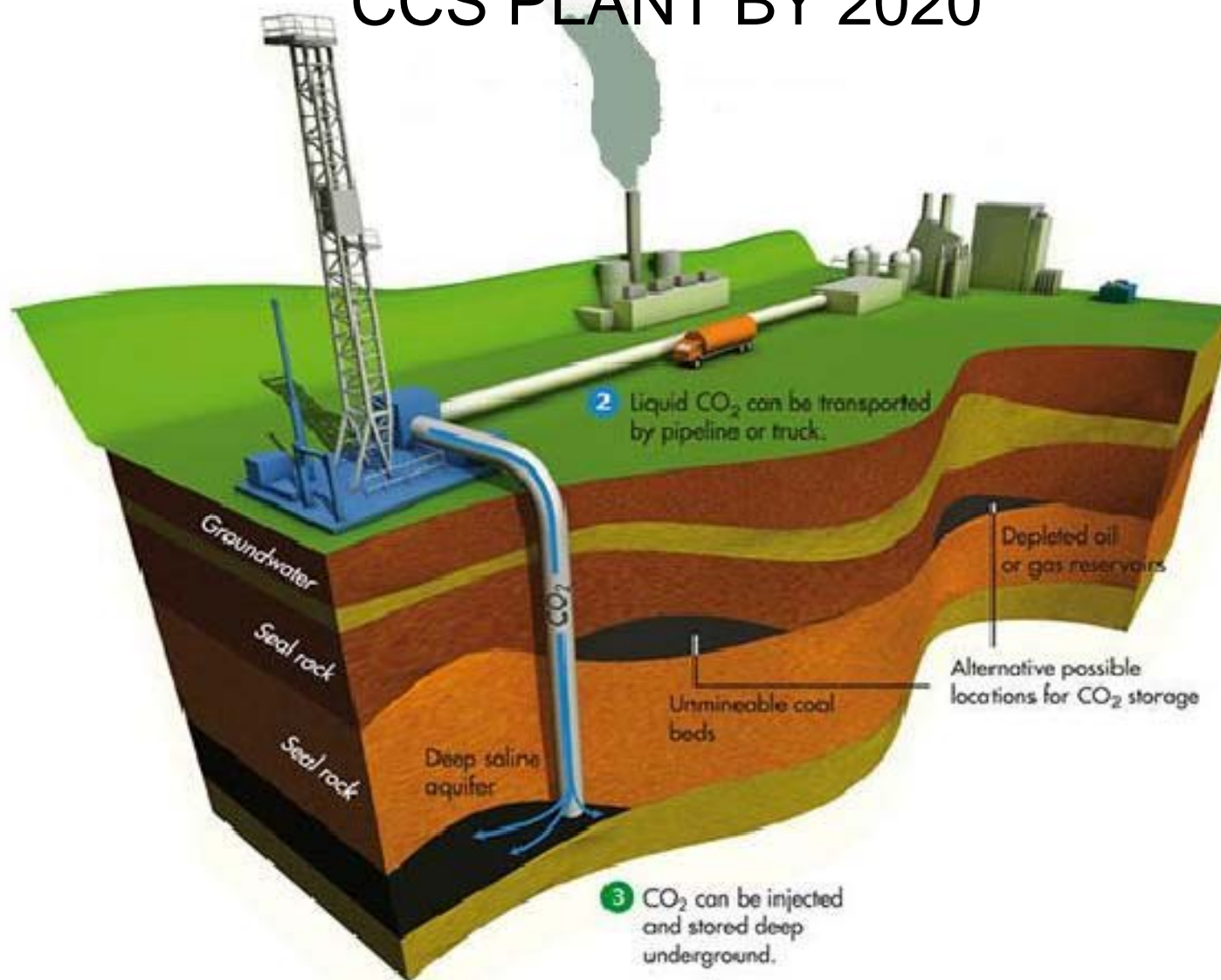
- Coal provides 80% of electricity supply
- 32% of Australia's emissions come from coal-fired electricity
- Australia also has emissions-intensive industries which underpin Australia's economy
- Offshore and onshore storage capacity
- Other initiatives to meet emissions reduction targets



Demonstration of post-combustion capture – Victoria



CCS PLANT BY 2020





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OUR FRAMEWORK – THE NATIONAL LOW EMISSIONS COAL INITIATIVE

\$385 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.

A Carbon Storage Taskforce charged with developing the National Carbon Mapping and Infrastructure Plan to drive the prioritisation of, and access to, a national geological storage capacity.

Carbon Capture and Storage Flagships



REGULATION AND STORAGE OF CO₂ – COMMONWEALTH CCS LEGISLATION

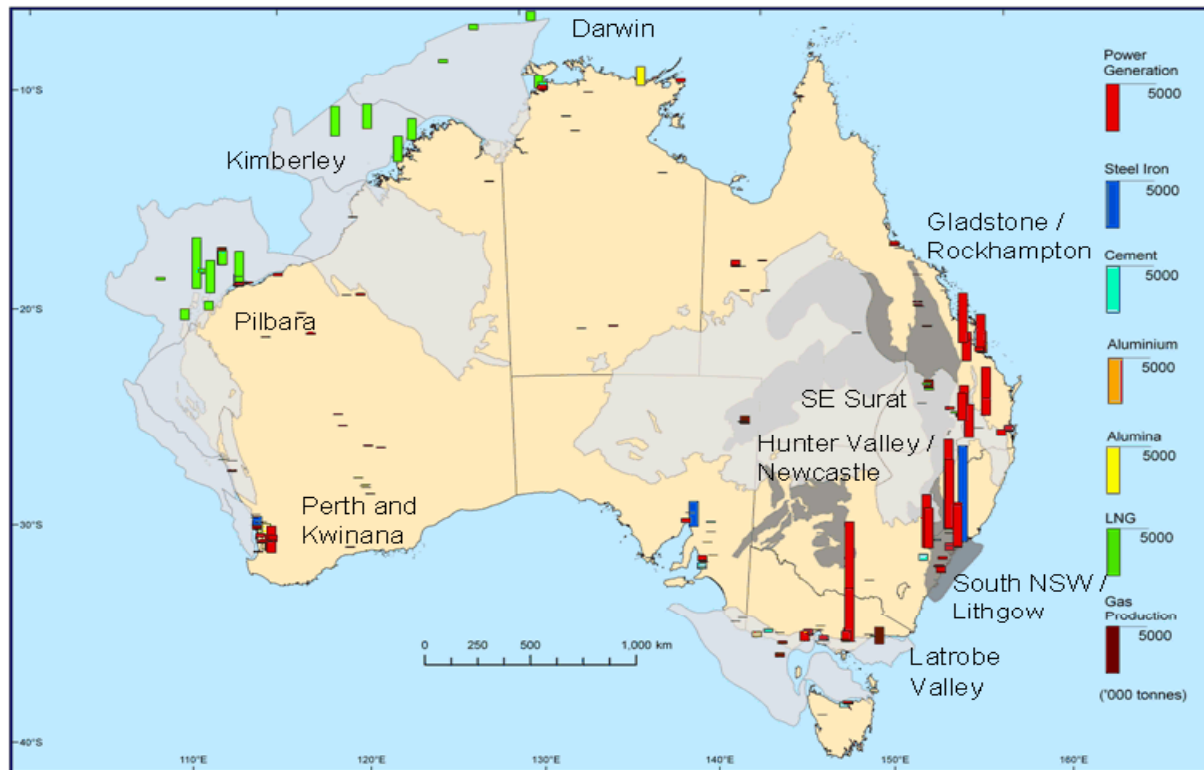
- Offshore Petroleum and Greenhouse Gas Storage Act 2008
- Major features of the legislation include:
 - title system similar to that used for petroleum
 - ensuring safe and secure storage
 - mechanisms for managing interactions with the petroleum industry
 - Site closure and treatment of long term liability
- Release of 10 offshore areas





REGULATION AND STORAGE OF CO₂ – NATIONAL CARBON MAPPING & INFRASTRUCTURE PLAN

To promote prioritisation of, and access to, national geological storage capacity and associated infrastructure requirements needed to accelerate deployment of CCS in Australia - Released on 8 December 2009





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SUPPORTING RELEVANT, PRACTICAL AND TIMELY R&D

\$150 million funding, half from the Australian Government and half from Australia's black coal industry

Focus is on supporting the accelerated deployment of commercial scale carbon capture and storage

But ANLEC R&D will also be looking at the less direct work, in particular in the alternatives and fundamentals node, that will test innovative concepts for large reductions on both capital and operating costs for low emissions coal technologies.



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DEMONSTRATION PROJECT – PILOT SCALE



- Pilot scale and medium scale Post Combustion Capture (PCC)
 - Loy Yang (Victoria)
 - Munmorah (NSW)
 - Tarong (Queensland)
- Callide Oxyfuel
- Calera carbonation project
- Nippon Steel Engineering
- Otway sequestration project



DEMONSTRATION PROJECTS – COMMERCIAL SCALE



- Gorgon Liquid Natural Gas Development - sequester 4MT CO₂ p.a. by 2014
- Carbon Capture & Storage Flagships

Collie South West Hub – to sequester 2.4MT with potential to 7 MT



ZeroGen
400MW IGCC
sequestering
3.0MT per
year

Wandoan –
330MW IGCC
sequestering
2.5MT per
year

CarbonNet –
hub to
sequester 3 –
5 MT



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GLOBAL COLLABORATION

Globally, approximately \$17-20 billion is on the table for large scale CCS.

Global CCS Institute.

Carbon Sequestration Leadership Forum, International Energy Agency, Major Economies Forum on Energy and Climate, Asia Pacific Partnership on Clean Development and Climate, Asia Pacific Economic Cooperation, numerous bilateral initiatives (US, Japan, China, Taiwan, Republic of Korea etc).





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GLOBAL COLLABORATION – KNOWLEDGE SHARING

Knowledge sharing is seen as crucial to the development and deployment of CCS, both nationally and internationally



- Internationally: the Australian Government participates in regional and global activities aimed to foster and accelerate knowledge sharing
- Nationally: all pilot and demonstration projects receiving government funding will have strong knowledge sharing obligations built into funding agreements

Knowledge sharing is of particular importance to derive maximum leverage for the public good



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THANK YOU

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