

# Why invest in Australia: resources and projects

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Resources, Energy and Trade

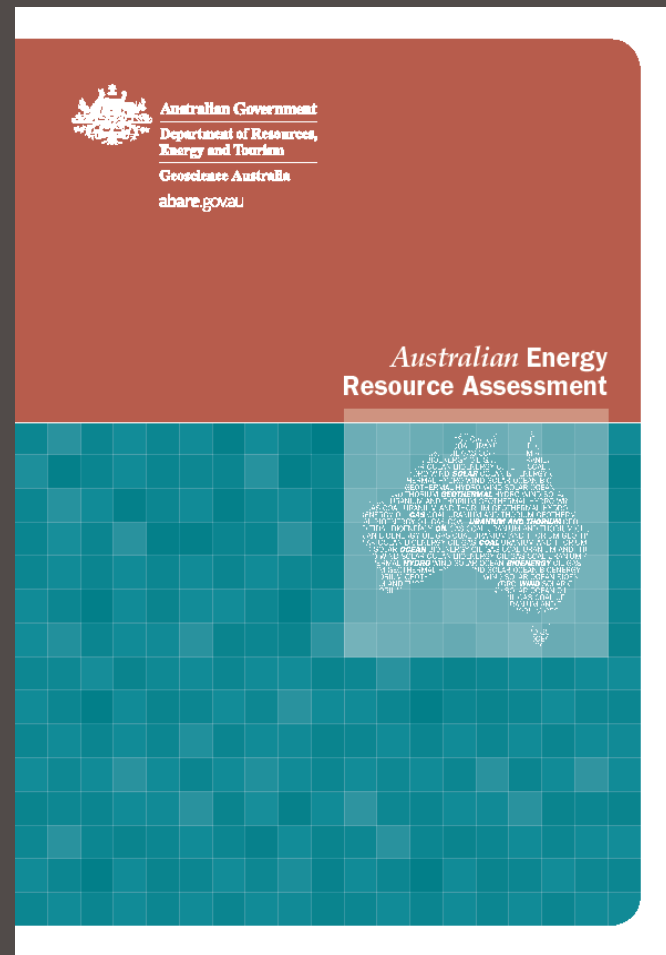
abare

# Key enablers

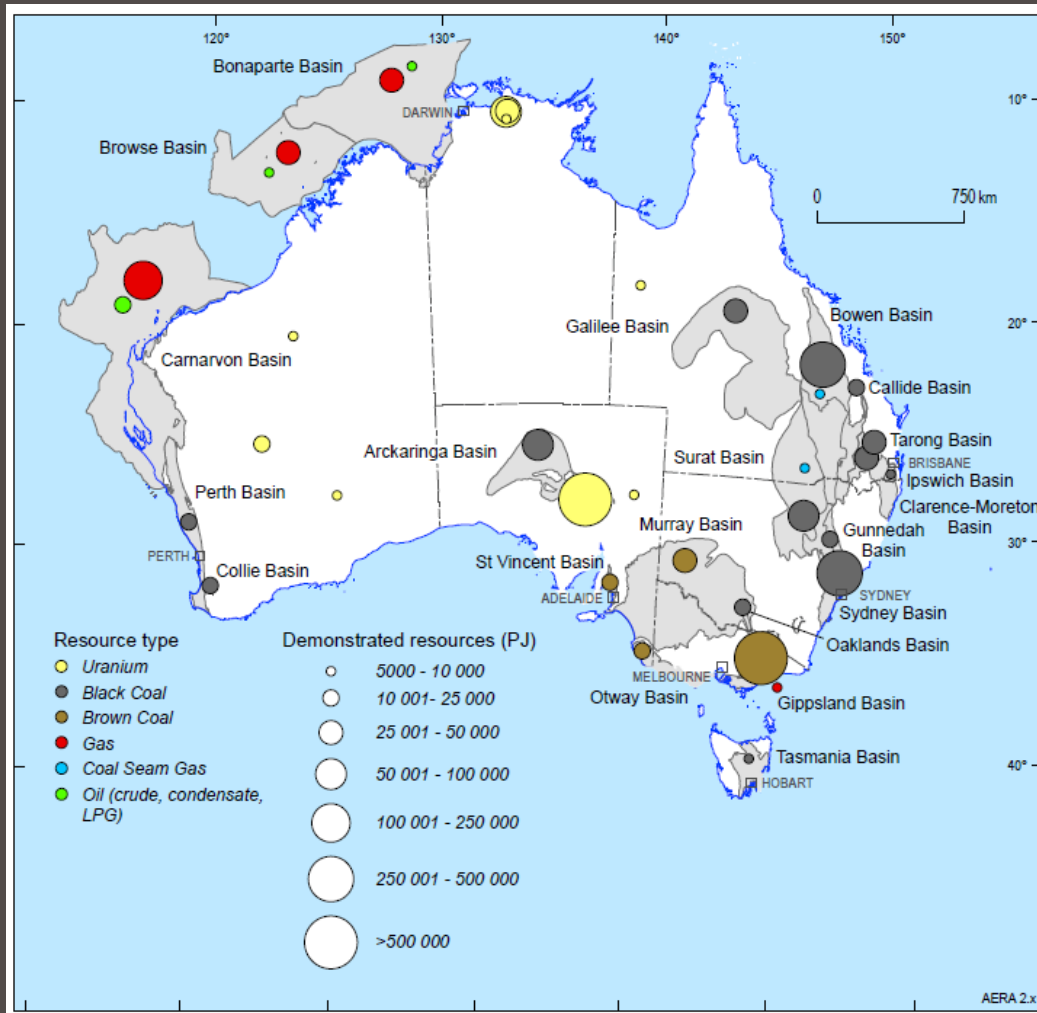
- Resources
- Market prospects
- Investment trends

# Australian Energy Resource Assessment

- GA and ABARE commissioned by RET
- Comprehensive and integrated scientific and economic assessment of Australia's energy resources
- Input to investment analysis and to decision-making and government policy development

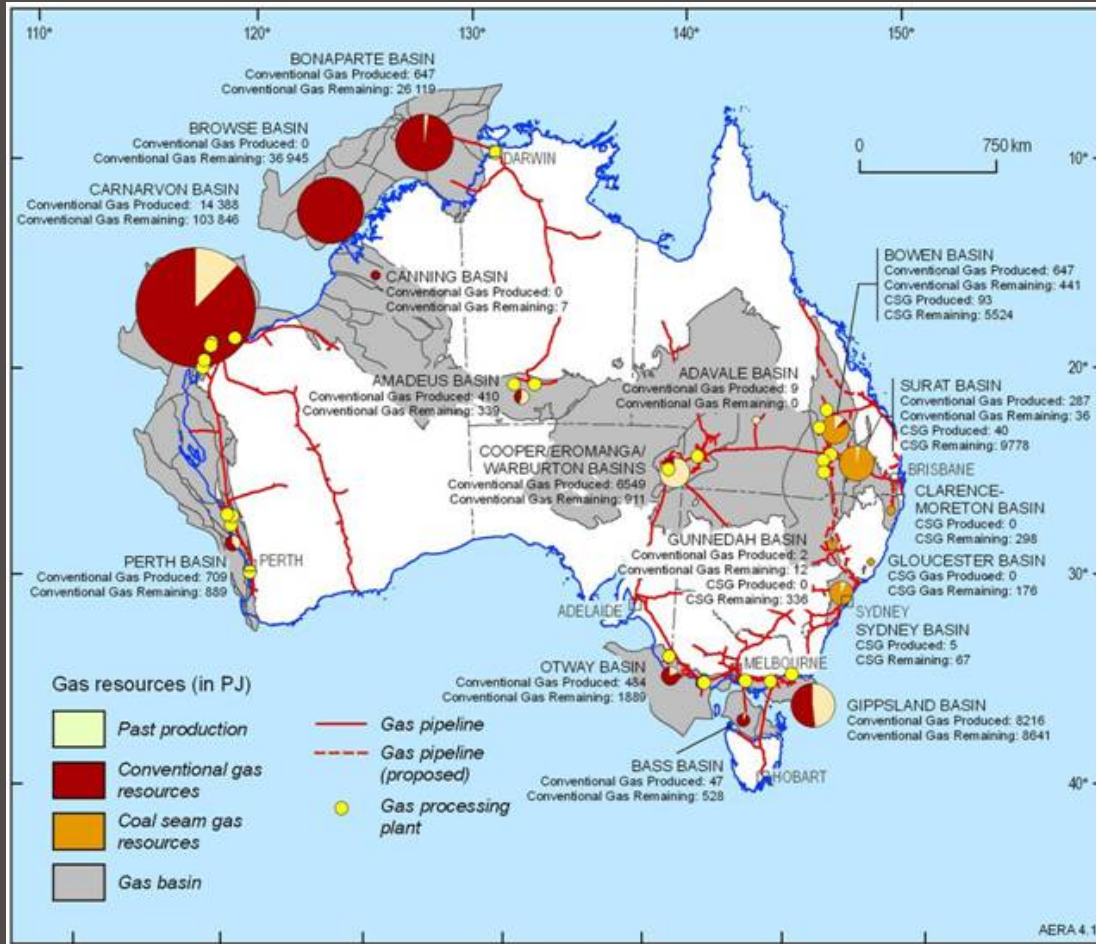


# Australia's abundant resource base



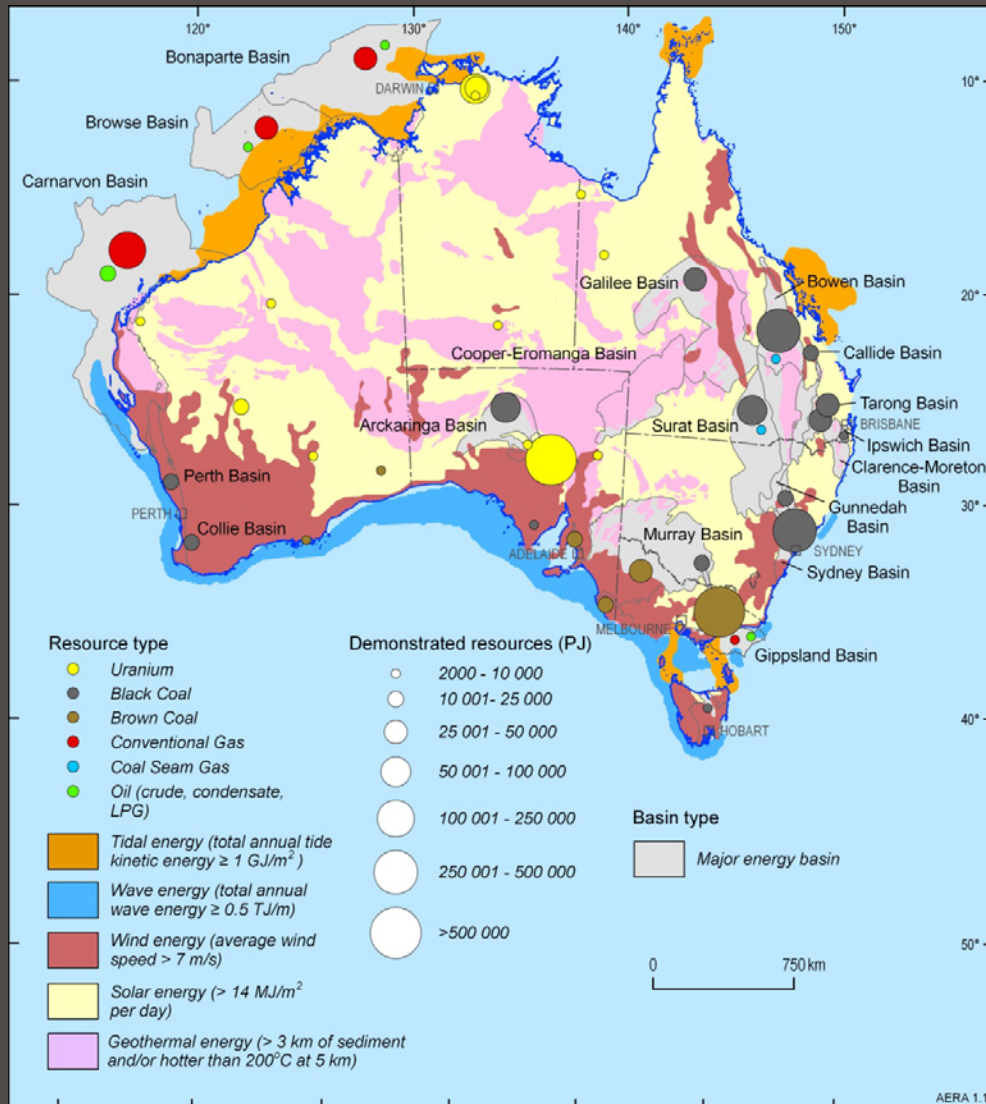
*“Australia has a large, diverse energy resources base... that supports domestic consumption and exports to many countries”*

# Australian gas reserves



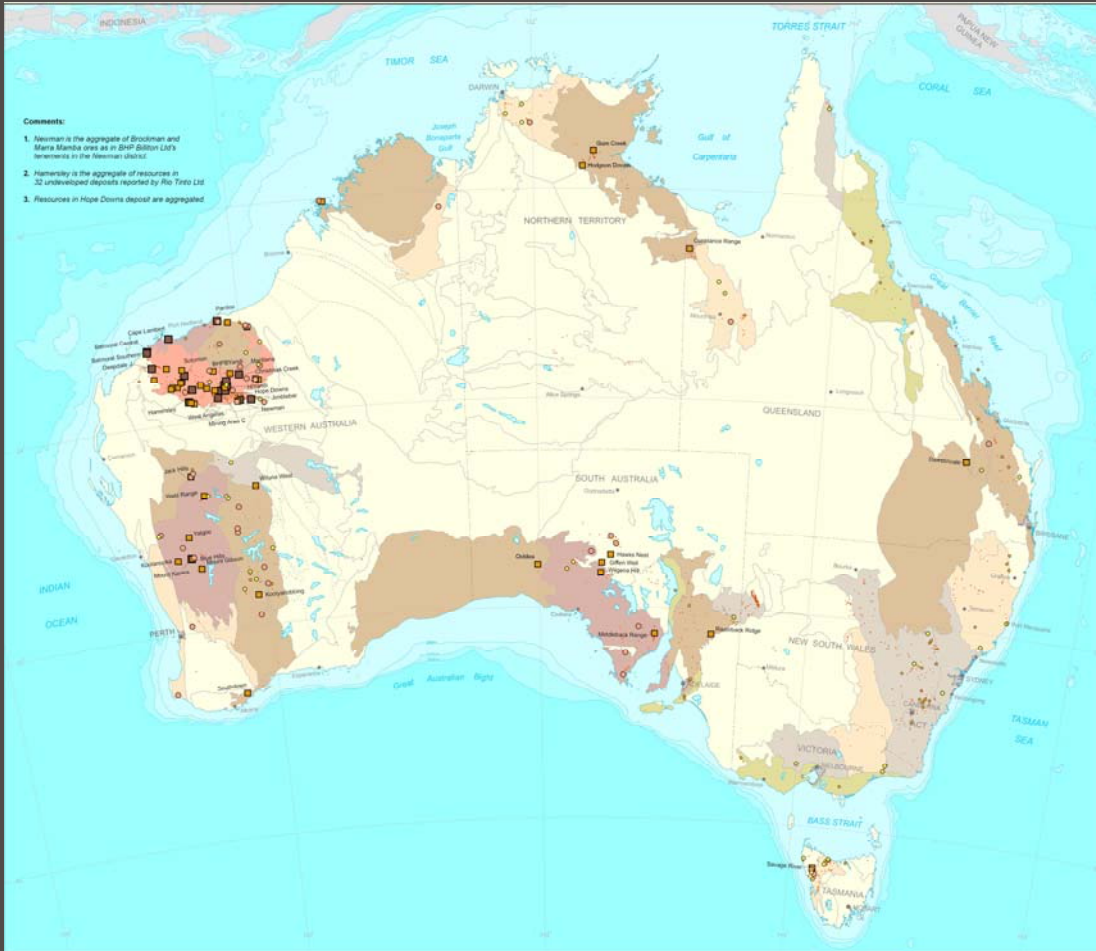
- Gas is Australia's third largest energy resource, after coal and uranium
- Australia's EDR and SDR of conventional gas were estimated at 180 400 PJ
- 63 years remaining at current production levels

# Renewable energy sources



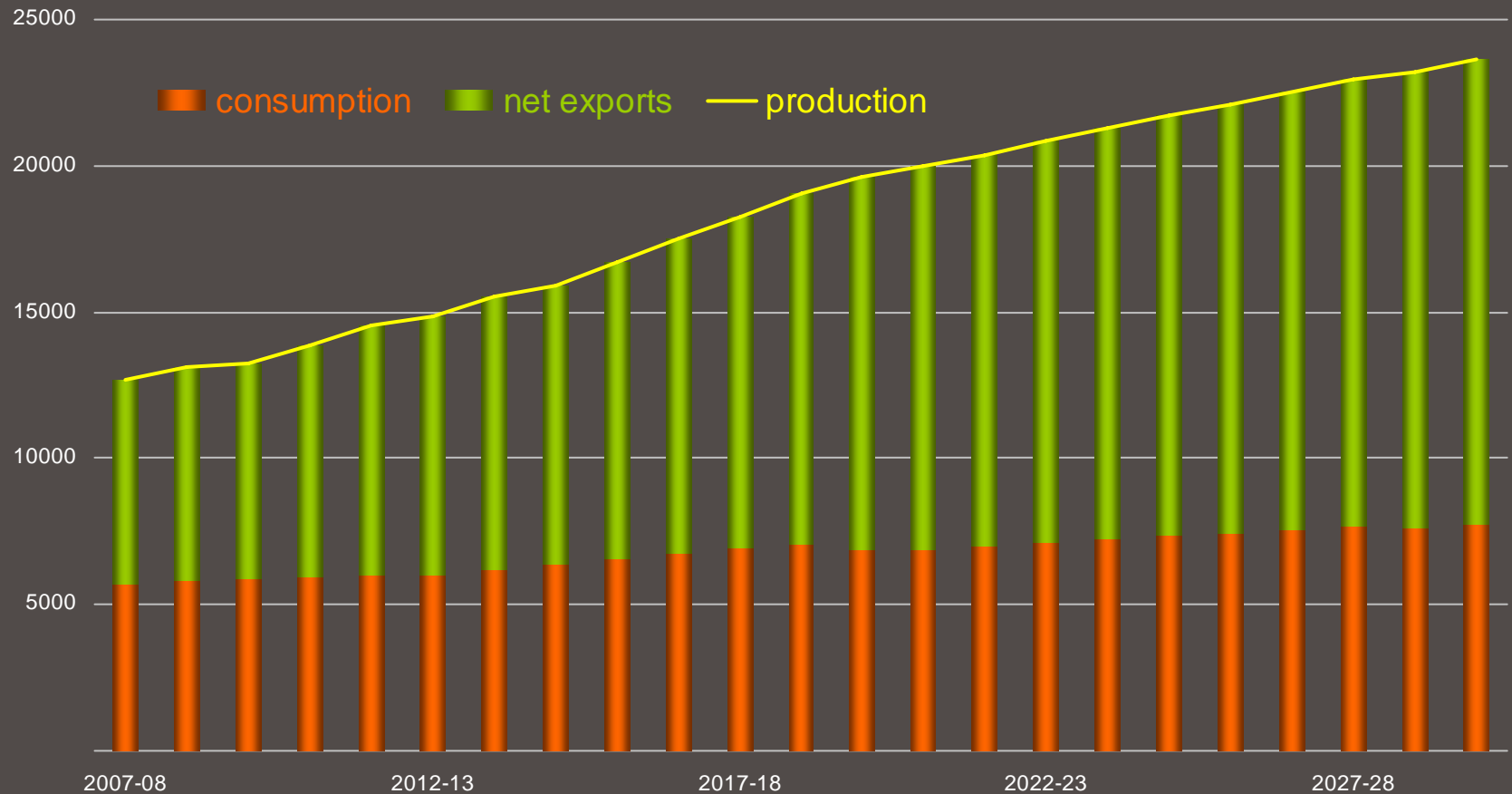
- Australia's potential renewable resource base is very large
- World class solar, Hot Rock geothermal and wind resources.

# Australian iron ore reserves



- Iron ore deposits concentrated in Western Australia, particularly in the Pilbara region
- In 2008, Australia was the world's second largest producer, and the largest exporter.

# Australian energy balance





# Minerals and energy:

## Major development projects – April 2010 listing



### **Minerals and energy** Major development projects – April 2010 listing

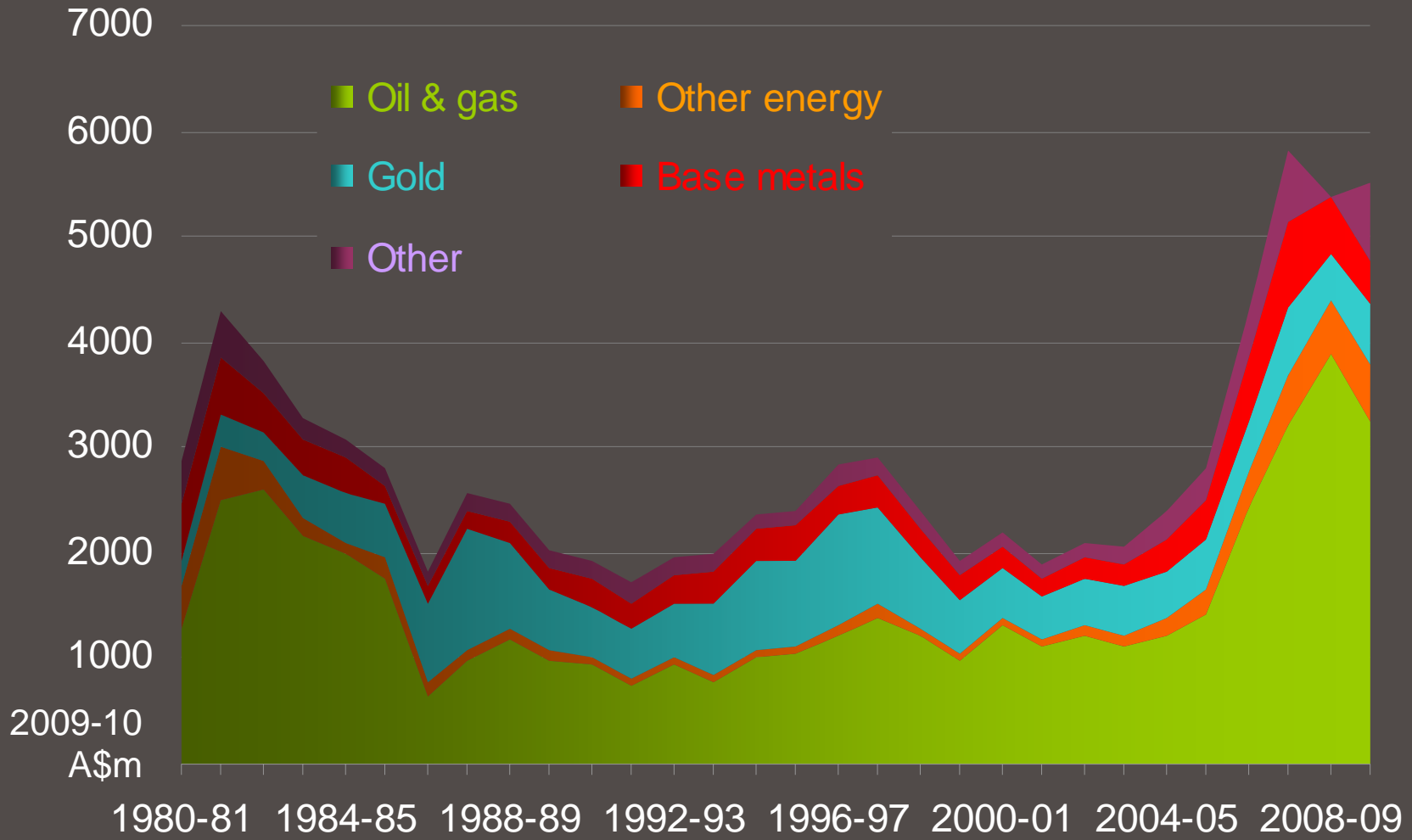
Michael Lampard and commodity analysts

May 2010

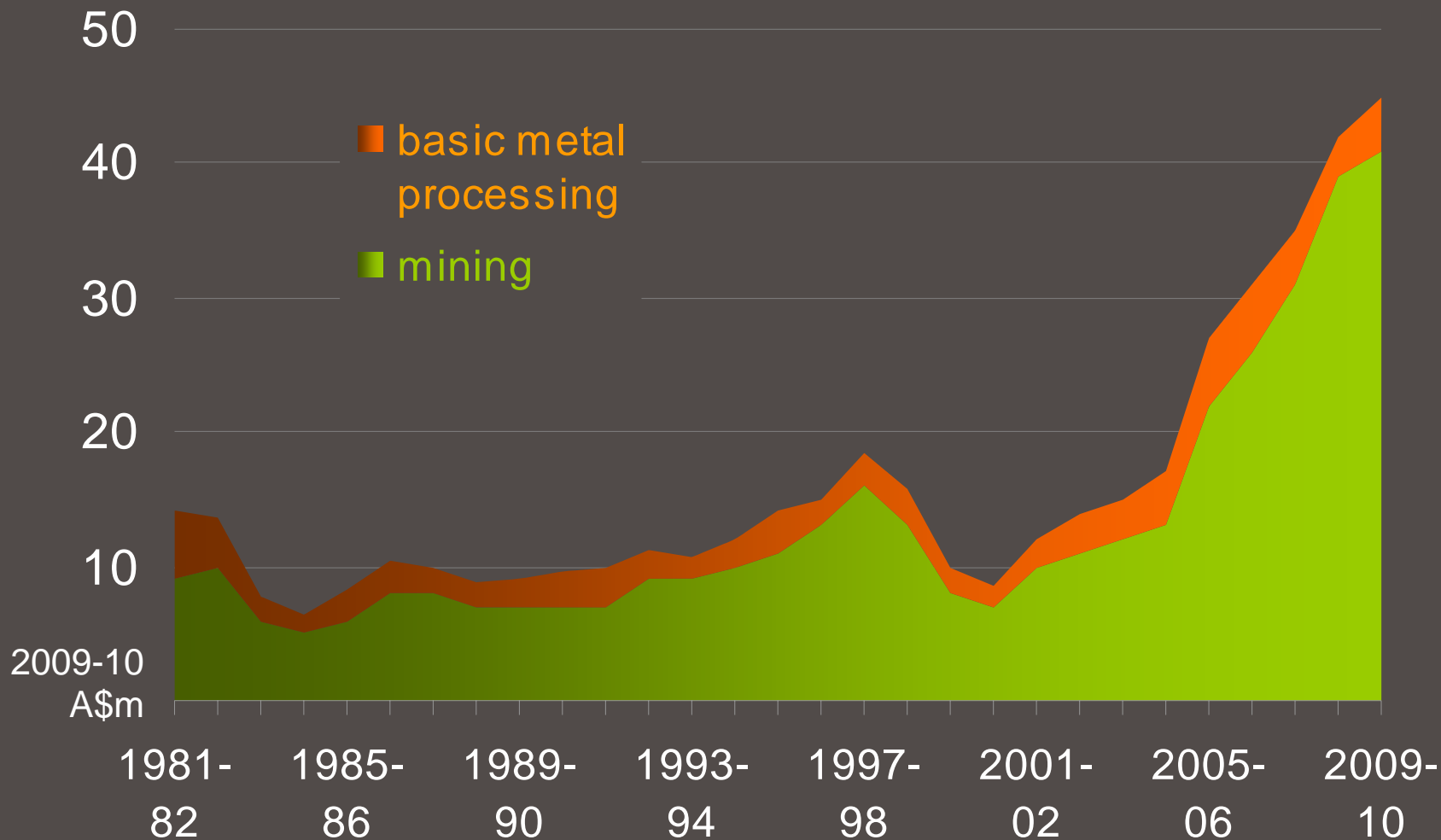
**abare**.gov.au

- Compiles a list of projects expected to be developed over the medium term
- Information spans the mineral resources sector and includes energy and minerals commodities projects and mineral processing projects.

# Exploration expenditure

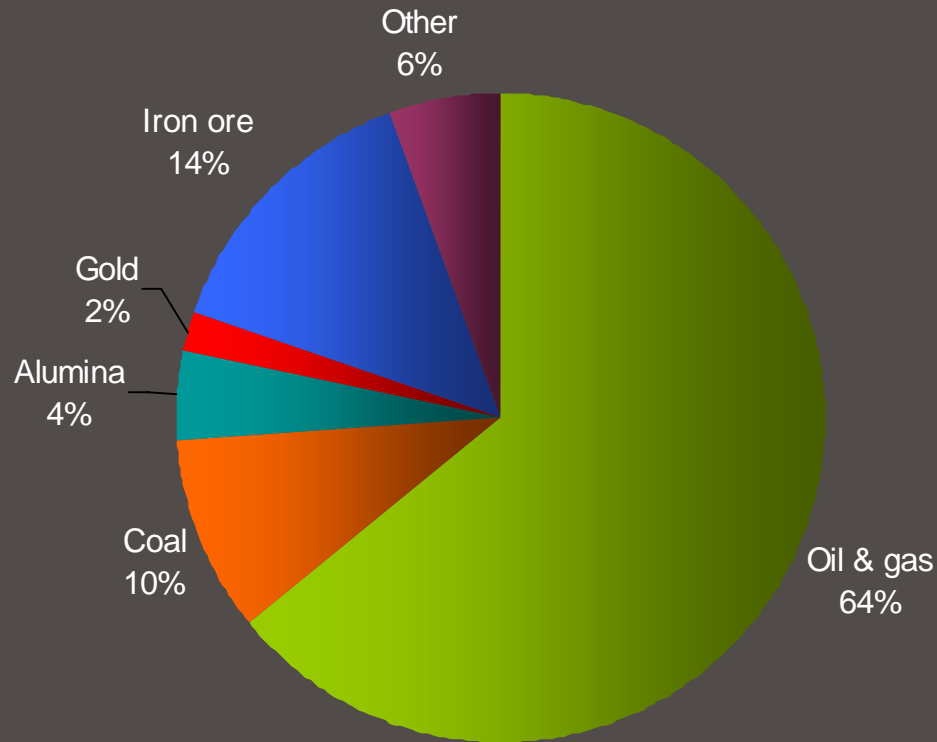


# New capital expenditure (2009-10 A\$)



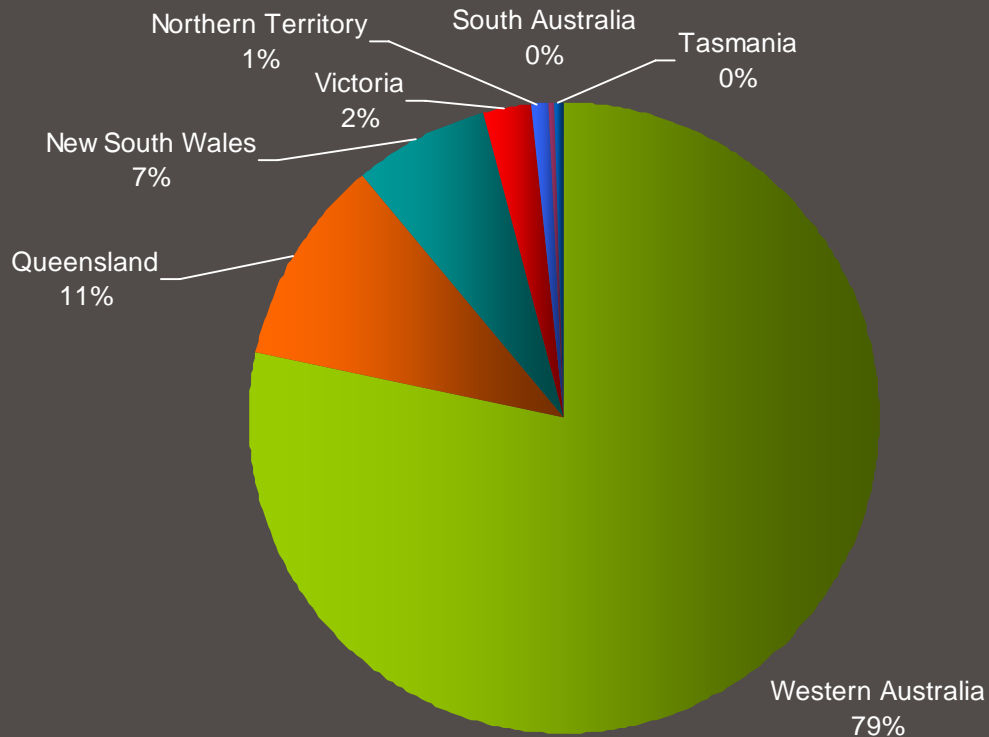
# Value of committed projects by commodity

April 2010 - \$109.6 billion



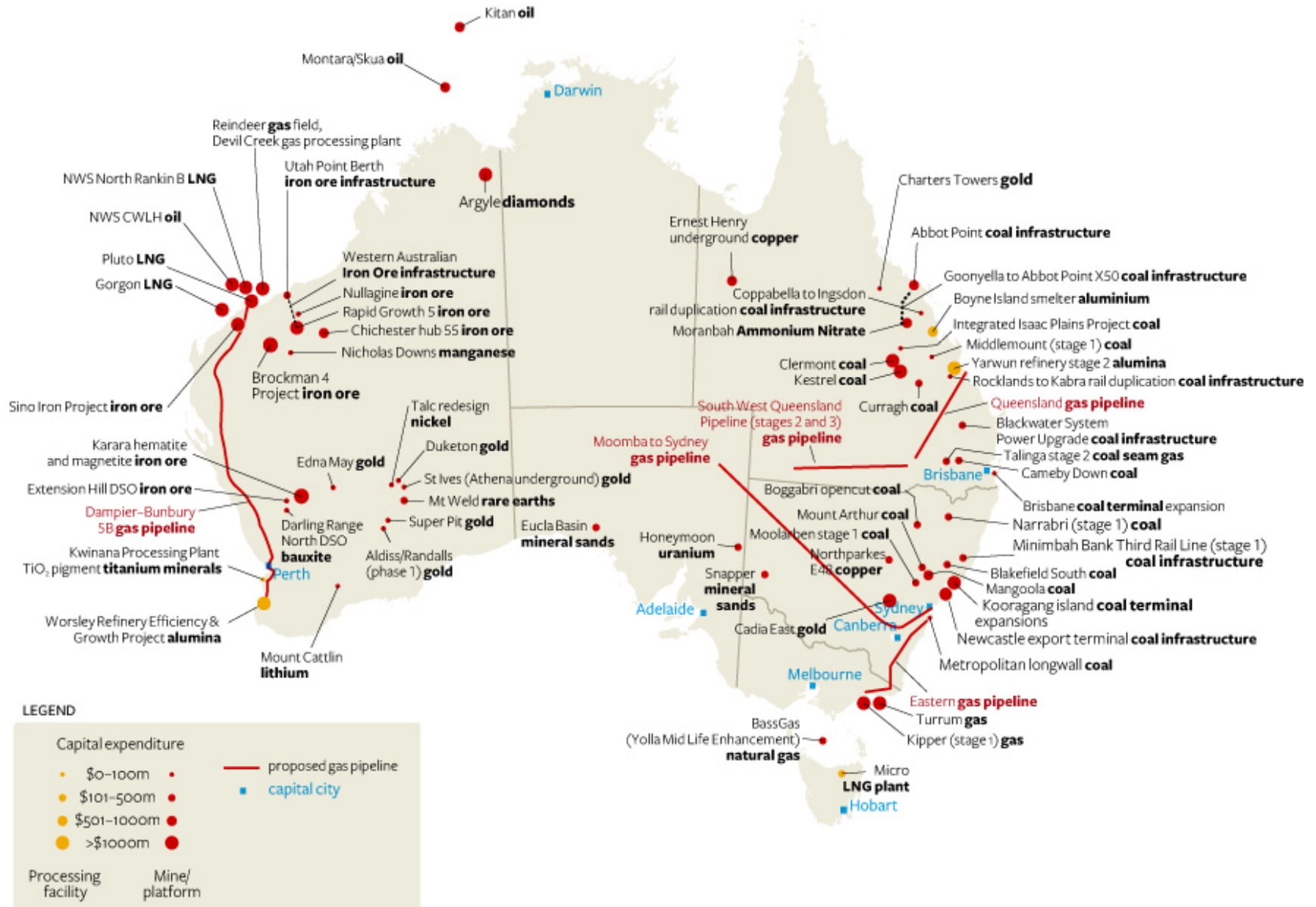
# Value of committed projects by region

April 2010 - \$109.6 billion



# 1 Advanced minerals and energy projects

April 2010



# Major Australian energy development projects

	Project	Status	Expected Startup	New Capacity	Capital Expend.
COAL	Mangoola (Anvil Hill opencut)	New project, under construction	2012	9 Mt thermal	\$1b
	Clermont opencut	New project, under construction	2010	12.2 Mt thermal	US\$1.3b (A\$1.5b)
	Kestrel	Expansion, under construction	2010	1.7 Mt coking	US\$991m (A\$1.19b)
OIL & NATURAL GAS	Gorgon LNG	New project, under construction	2015	15 Mt LNG	\$43b
	NWS CWLH	Expansion, under construction	2011	60 kbpd oil, 35 PJ pa gas	US\$1.47b (A\$1.7b)
	NWS Ranking B	New project, under construction	2013	967 PJ pa	US\$5.1b (A\$5.8b)
	Pluto (train 1)	New project, under construction	late 2010	4.3 Mt LNG	\$12.1b (incl. site works for train 2)

# Major Australian minerals development projects

	Project	Status	Expected Startup	New Capacity	Capital Expend.
<b>GOLD</b>	<b>Cadia East</b>	Expansion, under construction	2013	700 000-800 000 oz Au & 100 kt Cu (Total Cadia Valley operations)	\$1.9b
<b>IRON ORE</b>	<b>Hamersley Iron Brockman 4 project (Phase A)</b>	Expansion, under construction	2010	22 Mt	US\$1.5b (A\$1.7b)
	<b>Karara magnetite</b>	New project, under construction	2011	8 Mt concentrates	\$1.7b
	<b>Sino Iron Project</b>	New project, under construction	2010	28 Mt (concentrates and pellets in total)	US\$3.5b (A\$4b)
	<b>Western Australian Iron Ore Rapid Growth Project 5 (RGP5)</b>	Expansion, under construction	2011	45 Mt	US\$5.65b (A\$6.4b) (incl. infrastructure)
<b>DIAMONDS</b>	<b>Argyle underground</b>	New project, under construction	2012	Nil	US\$1.5b (A\$1.8b)



# The Mining Technology Services and Equipment (MTSE) sector



- ABARE currently compiling a study of the MTSE sector: Australia is a global centre for mining technology and expertise.
- Over the past decade, this sector has seen significant growth in both domestic and export markets
- Increasing export exposure to developing Asian markets will underpin significant growth opportunities

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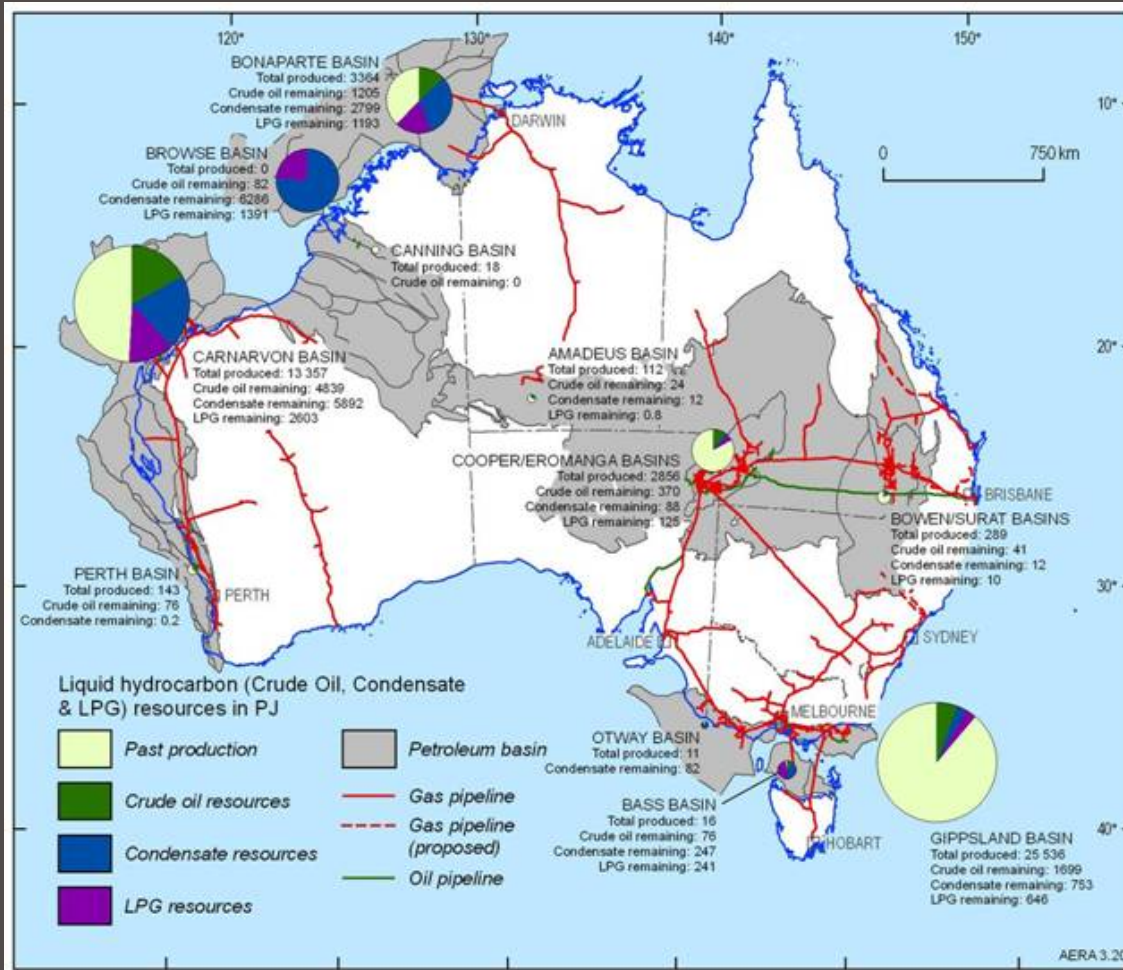
Australian Energy Resource Assessment: Geoscience  
Australia/ABARE

Minerals and energy: Major development projects – April 2010 listing

Australian commodities: March quarter 2010

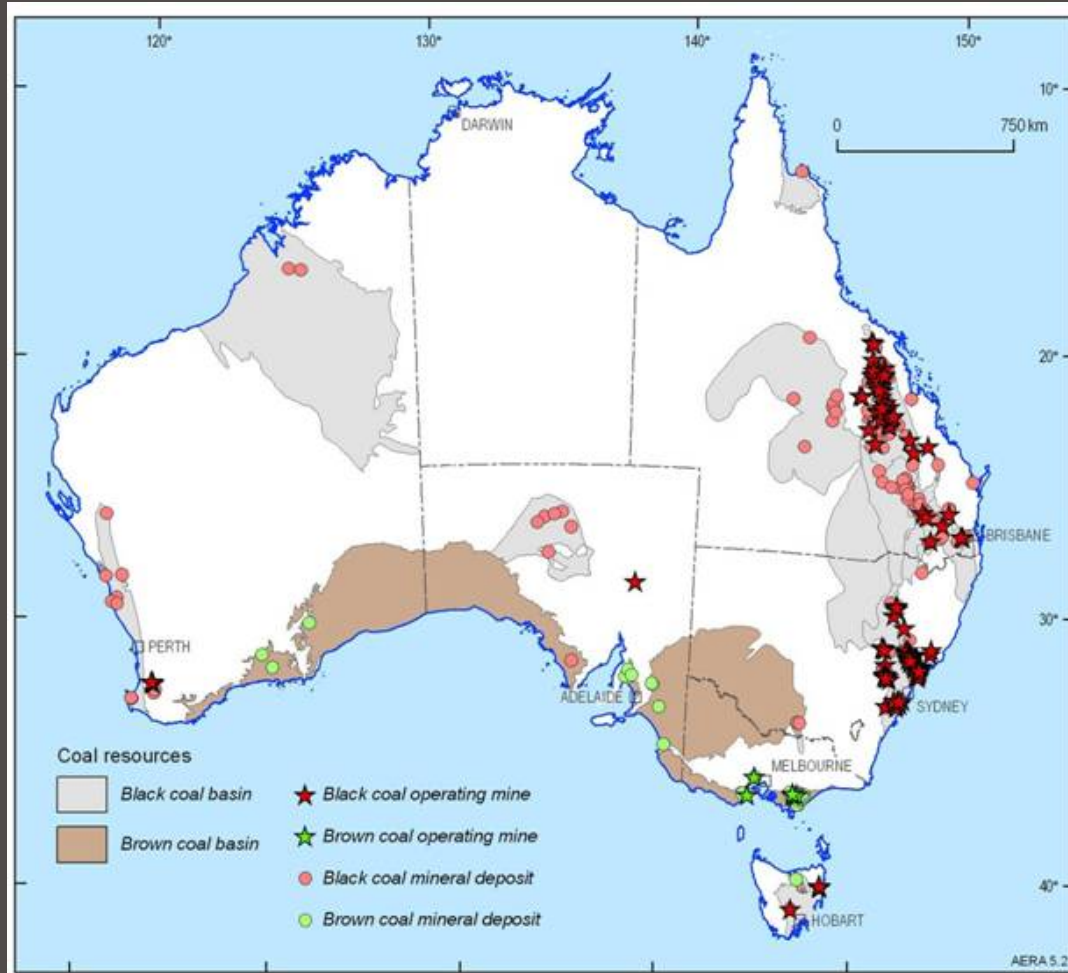
Australian energy projections to 2029-30

# Australian oil reserves



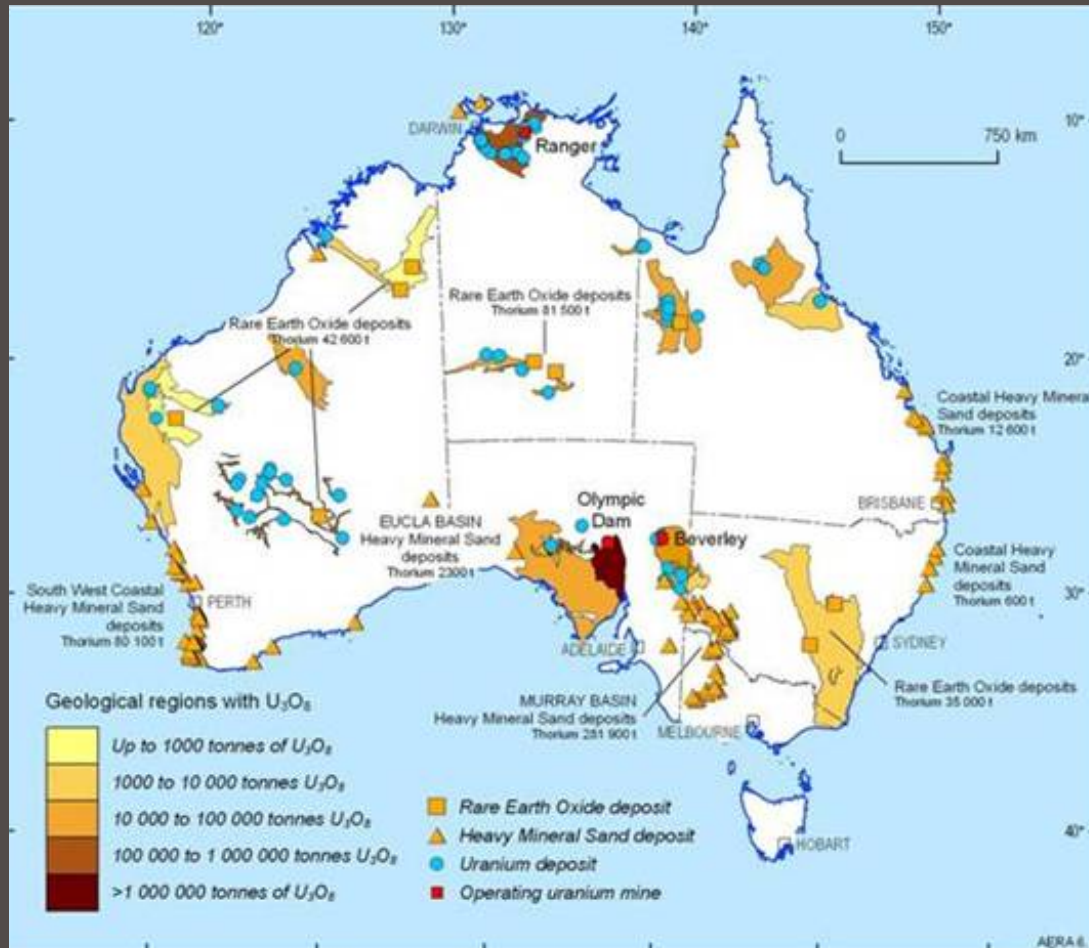
- Australia has modest and declining crude oil resources and production
- Additional condensate and LPG resources associated with offshore gas
- Exploration potential
  - but mostly in frontier areas

# Australian coal reserves



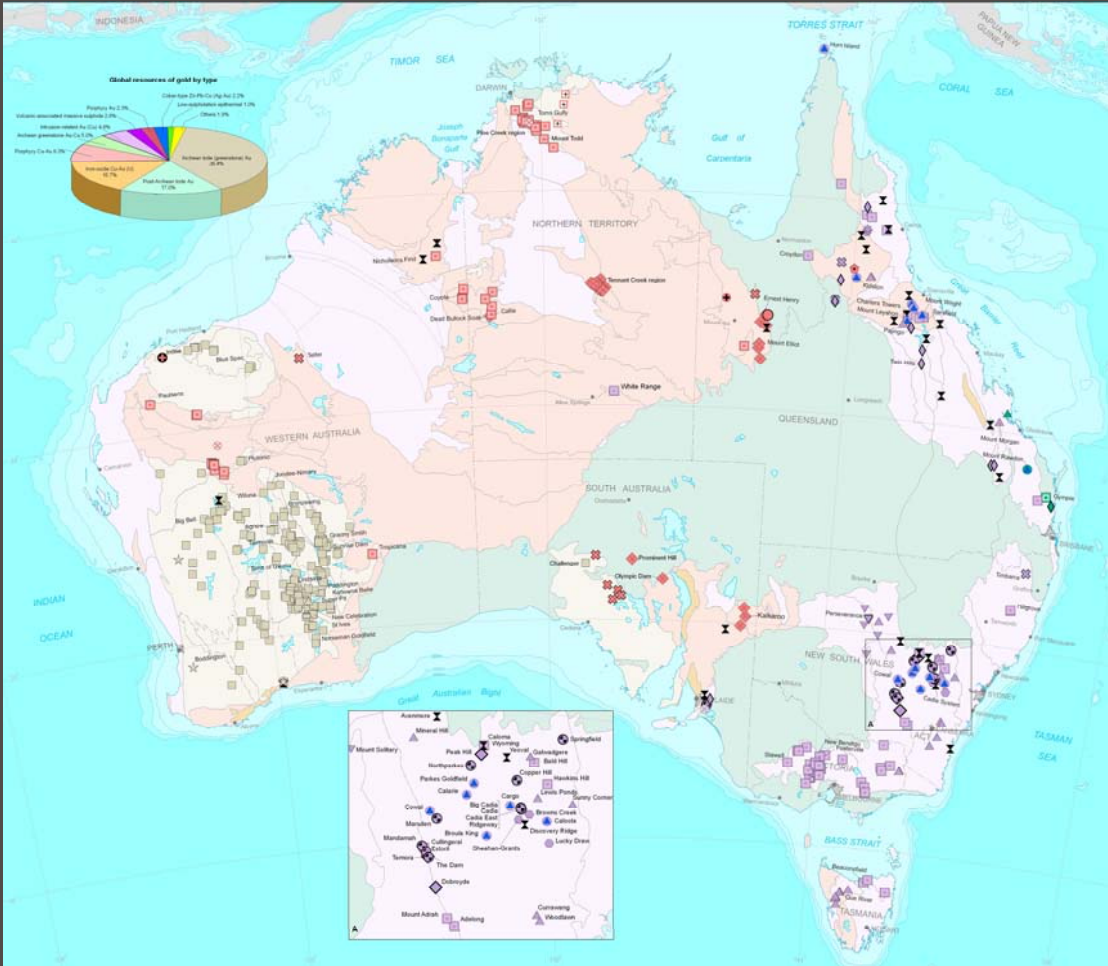
- Australia is the fourth largest producer, the largest exporter, and has the fourth largest reserves of coal in the world.
- At the 2008 rate of production, EDR are adequate to support about 90 years of production.

# Australian uranium reserves



- Aust has ~38% world uranium resources
- 140 years remaining at current production levels
- Growing global demand (3.7% pa) for uranium; 53 new nuclear power plants in progress, 135 others planned

# Australian gold reserves



- According to the USGS, Australia has the second largest gold reserves in the world, behind South Africa and equal with Russia
- At 2009 production rates, current EDR of gold will last another 29 years