• 일시 및 장소

- 일 시 : 2015. 7. 17(금), 16:30~18:00
- 장 소 : 해외자원개발진흥재단 강의실

• 교육대상

- 자원개발 관련 기업·기관 및 유관기관 종사자
- 관련학과 대학(원)생
- 자원개발에 관심있는 타분야 전문가 및 학생 등

• 참가방법

- 참가방법 : 참가신청서 작성 후 이메일(yeon@emrd.or.kr) 신청
- 참 가 비 : 1인당 30,000원
  - 학부생 20,000원
  - 재단출연사 및 협회회원사 15,000원
- 접수마감일자 : 2015. 7. 15(수)

※ 교육문의 : 02-2112-8730

※ 참가비 납부 : 우리은행 1005-601-698774 (예금주: 해외자원개발진흥재단)

www.fored.or.kr

교육목차

01. 호주의 자원과 에너지에 대한 투자

- 강의자료(영문) 참고

02. 호주 자원개발에 대한 규제

- 강의자료(영문) 교육일 배포 예정

※ 국판 강의자료 없음

강사소개

박사라 Senior Investment Manager

- 주한호주대사관무역대표부 소속

- 런던 비즈니스 스쿨(LBS) MBA 졸업

■ 약도 및 차량이용 방법

▶ 주소

주　　소 : 서울특별시 강남구 강남대로 308, 8층(역삼동, 랜드마크타워)
대표전화 : 02-2112-8730
팩스번호 : 02-2112-8704

▶ 찾아오시는 길

① 강남역 2호선(4번 출구)
- 도보 약10분 소요
- 버스 : 강남역(중) 421번, 407번, 462번* 승차 → 우성아파트(중) 하차

② 양재역 7호선(3번 출구)
- 도보 약10분 소요
- 버스 : 뺑뺑사거리(중) 400번, 462번* 승차 → 우성아파트(중) 하차

* 강남역에서 버스 탑승시 양재역까지, 양재역에서 버스 탑승시 강남역까지 가는 모든 버스 이용 가능

※ 교육문의 : 02-2112-8730
※ 참가비 납부 : 우리은행 1005-601-698774 (예금주: 해외자원개발진흥재단)

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「FORED 자원개발교실」 참가신청서

☐ 참가 신청

회원구분	소속명(팀)	직 위	성 명	연락처(mobile)	E-mail
· 일반회원 · 학생회원 · 재단출연사 · 협회회원사 · 연간회원					
교육담당자					

☐ 입금 정보

입금예정일	입금액	지급인	환불계좌	비 고
				· 세금계산서(법인) · 현금영수증(개인)

위 본인은 'FORED 자원개발교실' 참가를 신청합니다.

성명 : (인)

※ 증빙 요청 : '<u>학생</u>' 및 '<u>출연사 및 협회회원사</u>' 신청자는 회원 자격을 확인할 수 있는 서류(학생증 및 사원증 사본 등)를 첨부하여 주시기 바랍니다.

※ 법인 세금계산서 발행 요청시 교육 담당자 또는 교육 참가자 본인에게 발행이 됩니다.

1. 교육안내 및 수강신청 문의처

o 교육기관 : 해외자원개발진흥재단
o 담　　당 : 재단사무국 방제연 사원(yeon@emrd.or.kr)
o 전　　화 : 02) 2112-8730 (문의 및 영수증)

2. 참가비 납부

o 참가비는 교육 개강일까지 납부하여 주시기 바랍니다.
o 입금안내

은행	계좌번호	예금주
우리은행	1005-601-698774	(재)해외자원개발진흥재단

※ 개인 현금영수증 발행시 신청서에 기재된 연락처 및 메일로 영수증이 발급되며, 법인 세금계산서 요청시에는 사업자등록증을 보내주시기 바랍니다.

3. 교육 참가신청 취소

o 교육 참가신청을 취소하실 경우에는 반드시 메일 및 유선으로 알려 주시기 바랍니다.
o 참가비 선입금 후 교육 참가신청을 취소하실 경우에는 아래 참가비 환불 기준에 따라 참가비를 환불해 드립니다.
o 교육이 시작된 이후에 참가비는 절대로 반환이 되지 않습니다.

[참가비 환불 기준]

1. 참가자 환불 요청시
① 교육 시작일 기준으로 하루 전 18시까지 : 참가비 전액 환불 또는 비용(교육 책자 등) 차감 후 환불
② 교육 당일 및 이후 환불 요청시 : 환불 불가
③ 연간회원 환불 요청시 : 환불요청 이전에 참가한 강좌의 원금액을 공제하고 잔여 교육에 대한 회비 환불

2. 재단에서 환불 사유 발생시
① 교육 폐강 등 재단에서 환불 사유 발생시 참가자가 선입금한 참가비 전액 환불
② 연간회원의 경우, 폐강된 교육 기간만큼 연간회원 기간을 자동 연장, 더 이상 교육을 실시하지 않는 경우에는 납부한 회비에서 잔여 수강권의 n/10 계산된 금액을 반환함

4. 회원 구성 및 회비 안내

o 회원 구성 및 회비 안내

- 일반회원 : ‘학생’ 및 ‘출연사 및 협회 회원사’를 제외한 교육 참가자
- 학생회원 : 학부생까지 구성된 회원(대학원생은 일반회원으로 적용)
- 출연사 및 협회 회원사 : 출연사 및 협회 회원사 직원으로 교육 신청자

(단위 : 원, 부가세 포함)

회원 구분	참가비/회	연간회원(10회)
일 반	30,000원	180,000원(40%할인)
학 생	20,000원	150,000원(25%할인)
출연사 및 협회 회원사	15,000원	120,000원(20%할인)

o 연간회원 신청 방법

① ‘FORED 자원개발교실 참가신청서’ 상의 회원구분에 해당되는 회원(일반, 학생, 출연사 및 협회회원사)과 연간회원 동시 체크

② 신청서 작성 완료 후 접수처로 제출

③ 회비 납부(계좌이체)

※ 연간회원의 경우 각 강의 신청 기간 중 사전신청 필요

INVESTMENT IN AUSTRALIAN RESOURCES AND ENERGY

Australian Government
Australian Trade Commission

Australia
UNLIMITED

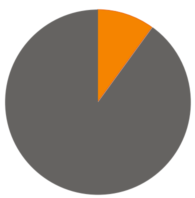
A world leader in resources and energy

Australia's vast mineral and petroleum reserves underpin its status as **a global leader in resources and energy**. There are significant exploration opportunities, a healthy pipeline of committed projects and growing demand for renewables and energy efficient technologies. Investors can collaborate with and enter the global supply chains of the **world's largest mining, oil and gas companies**, and participate in world-class research and development.

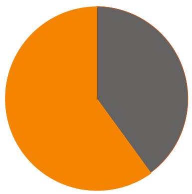
Why Australia

- 4th largest economy in Asian region and 12th largest in the world
- 23rd year of consecutive annual economic growth
- GDP of more than US$1.5 trillion (two per cent of global GDP)
- AAA rating by all three credit rating agencies
- A strategic base from which to export commodities, services and technologies to high-growth Asian markets.

Sector at a glance



Largest single export earner; **10 per cent** of GDP



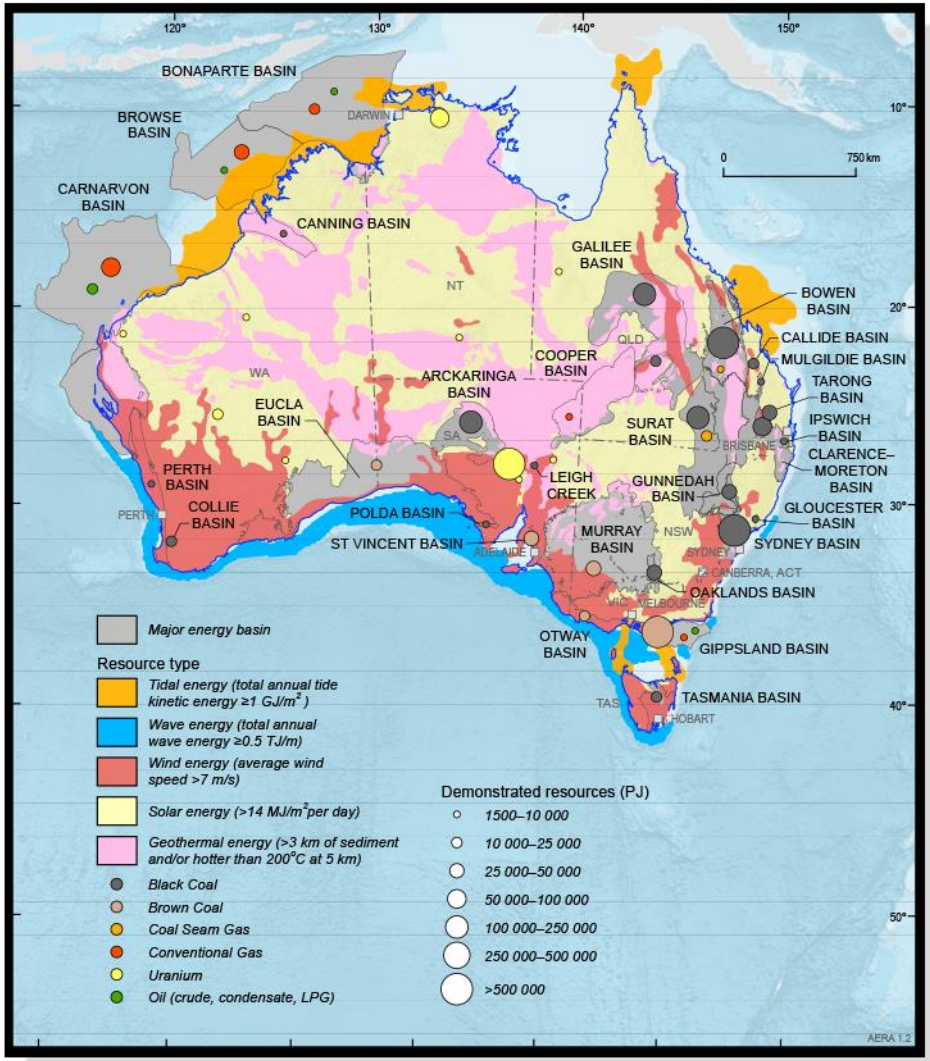
Generated **A$175.9 billion** in export income in 2012–13, almost **60 per cent** of total export income

Export earnings projected to be **A$284 billion** in 2018–19

Employed **266,000** people or 2.3 per cent of the national workforce

Invested **A$7.1 billion** in minerals and petroleum exploration

Location of major energy resources



Australia's commodity world rankings

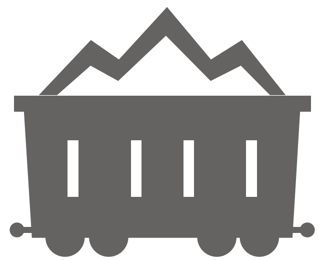
COMMODITY	RESOURCES	WORLD RANKING	PRODUCTION	WORLD RANKING
IRON ORE	44,650 Mt	1	520 Mt	1
URANIUM	1,174 kt	1	7.009 kt	3
COAL (BLACK)	61,082 Mt	5	501 Mt	4
GOLD	9,909 t	1	251 t	2
ZINC	64.1 Mt	1	1.54 Mt	2
NICKEL	17.7	1	0.244	4
COPPER	91.1 Mt	2	0.91 Mt	5
BAUXITE	6,281 Mt	2	76.3 Mt	1

Data as at December 2012. Source: Geoscience Australia, Australia's Mineral Resource Assessment 2013.

Large pipeline of committed projects

A$197bn

ENERGY
(14 projects)



A$22.3bn

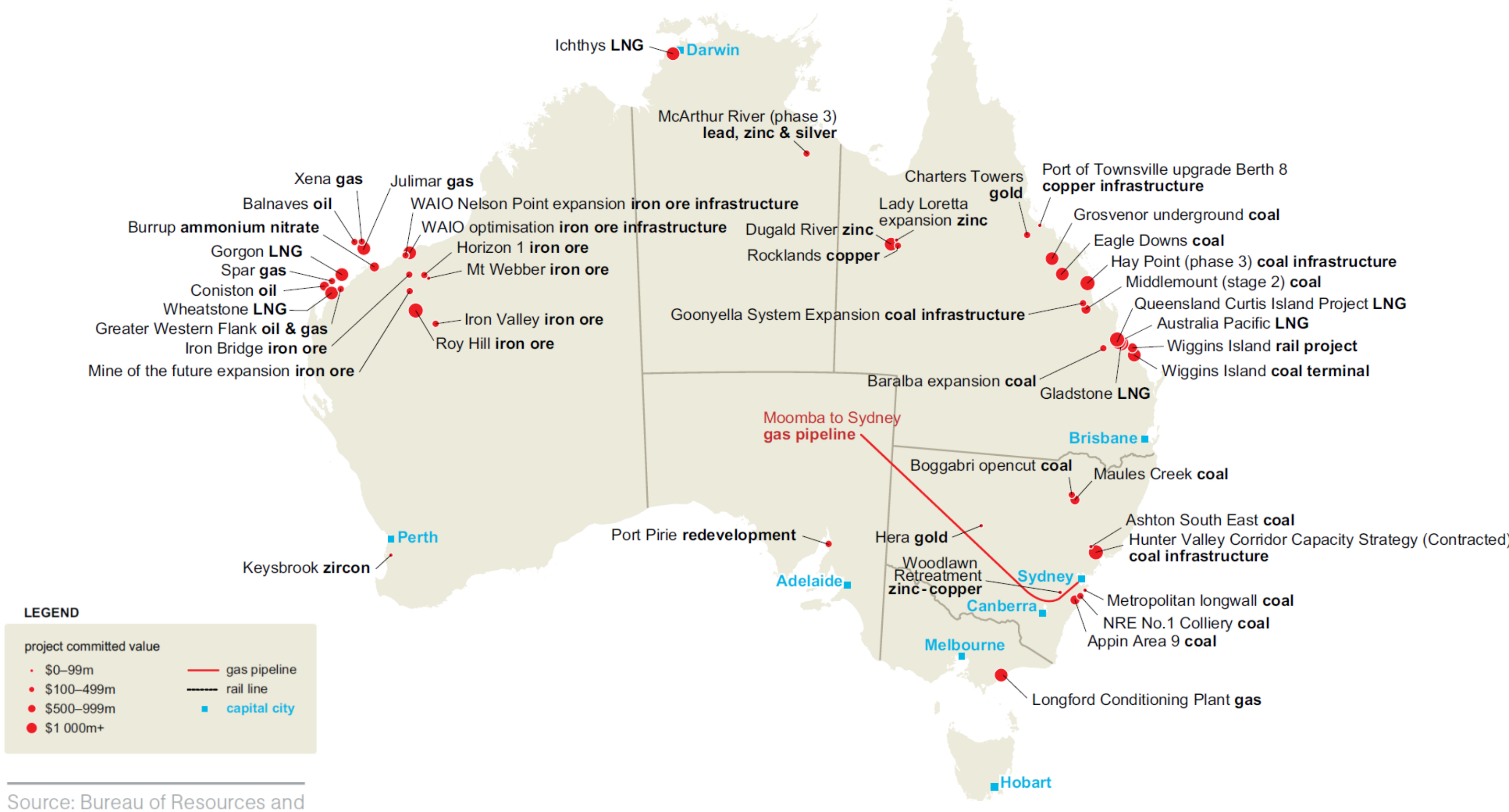
MINERAL,
MINING AND
PROCESSING
(25 projects)

A$9.5bn

INFRASTRUCTURE
(9 projects)

Above as at April 2014

Committed major projects



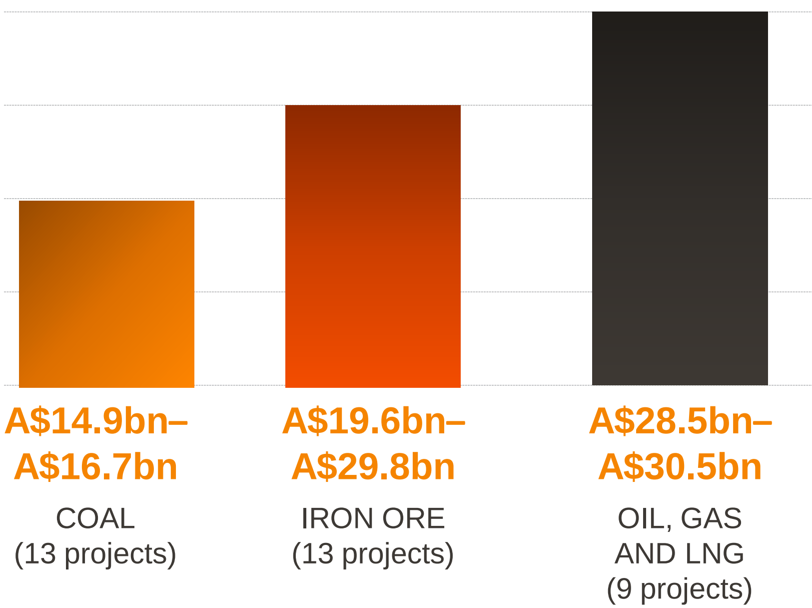
Source: Bureau of Resources and Energy Economics, *Resources and Energy Major Projects,* April 2014.

Major Australian resources and energy projects

224 major projects at the publicly announced and feasibility stages (as at April 2014)

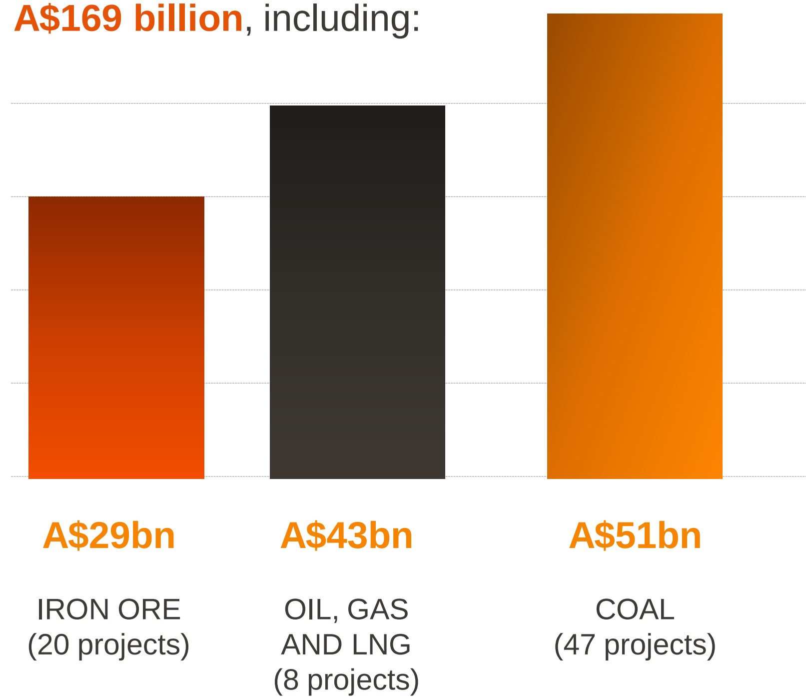
PUBLICLY ANNOUNCED

78 major projects with a combined value of between **A$96 billion** and **A$122 billion**, including:



FEASIBILITY

146 projects with a combined value of **A$169 billion**, including:



Opportunities in exploration and development

Australia has vast deposits in proven, underexplored or unexplored sites. International investors can access **in-depth geoscience data** to help them make informed decisions. There is also a significant pipeline of development-ready projects.

Vast deposits awaiting discovery

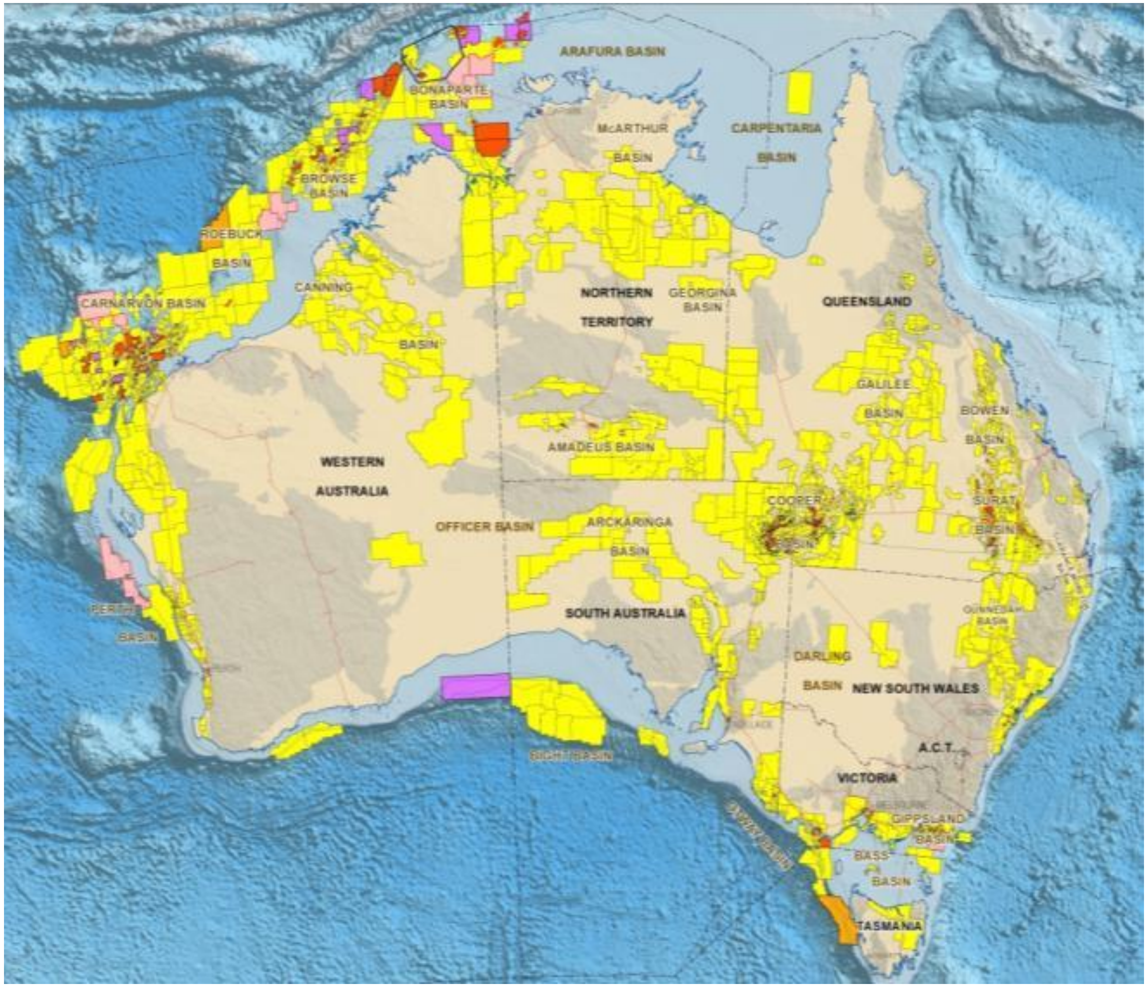
An underexplored continent, particularly at depths of more than **100 metres**

Offshore Petroleum Exploration Acreage Release: annual release of vacant offshore **petroleum areas** for exploration

Major geoscience programs provide explorers with pre-competitive information and datasets on brownfield and greenfield mineral sites

www.geoscience.gov.au provides an entry point to fundamental geoscience data and information.

Offshore oil and gas activities



Stable objective-based petroleum regulatory regime

- Security of title with clear role of Government, regulators and industry
- Pre-competitive data and analysis available at cost of transfer
- Ongoing efforts to reduce regulatory burden.

High prospective acreage

- Near record levels of petroleum activity
- 31 offshore areas released for work program bidding in 2013
- 2014 release includes areas for cash bidding.

Unconventional gas opportunities

Australia has some of the **world's largest reserves** of proven and probable unconventional gas

CSG resources estimated at 33 Tcf; EDR reserve life estimated at **150 years** at current production rates

Queensland has three CSG to LNG projects under construction with a total value of **A$63 billion**

Shale gas reserves estimated at 396 Tcf, nearly 400 years of Australia's current annual domestic gas use

The **Canning Basin** in Western Australia has the largest shale gas resources, estimated at 229 Tcf.

Opportunities in operations and maintenance

Australia's substantial pipeline of brownfield and greenfield oil and gas projects offers **a wealth of long-term supply chain opportunities** for operations and maintenance companies.

A snapshot of Australia's oil and gas sector

2013

The oil and gas sector contributed **A$26.9 billion** to Australia's merchandise exports in 2013

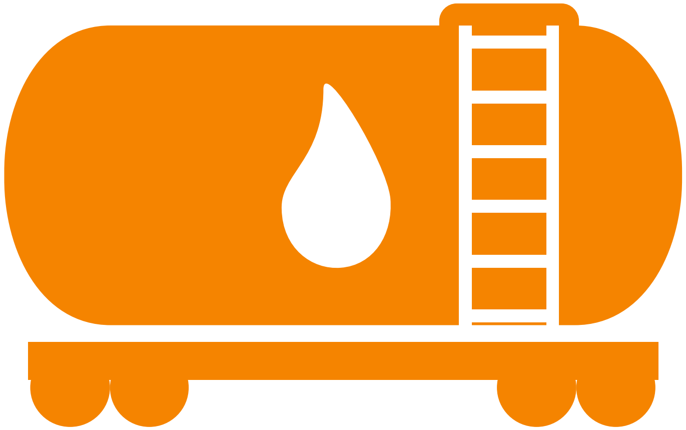
2014

As at April 2014, there were **30 oil, gas** and **LNG projects**, including 14 at the committed stage worth a combined **A$197 billion**

2035

Total operational expenditure in years to 2035 estimated at **A$411.5 billion**

LNG production set to rise



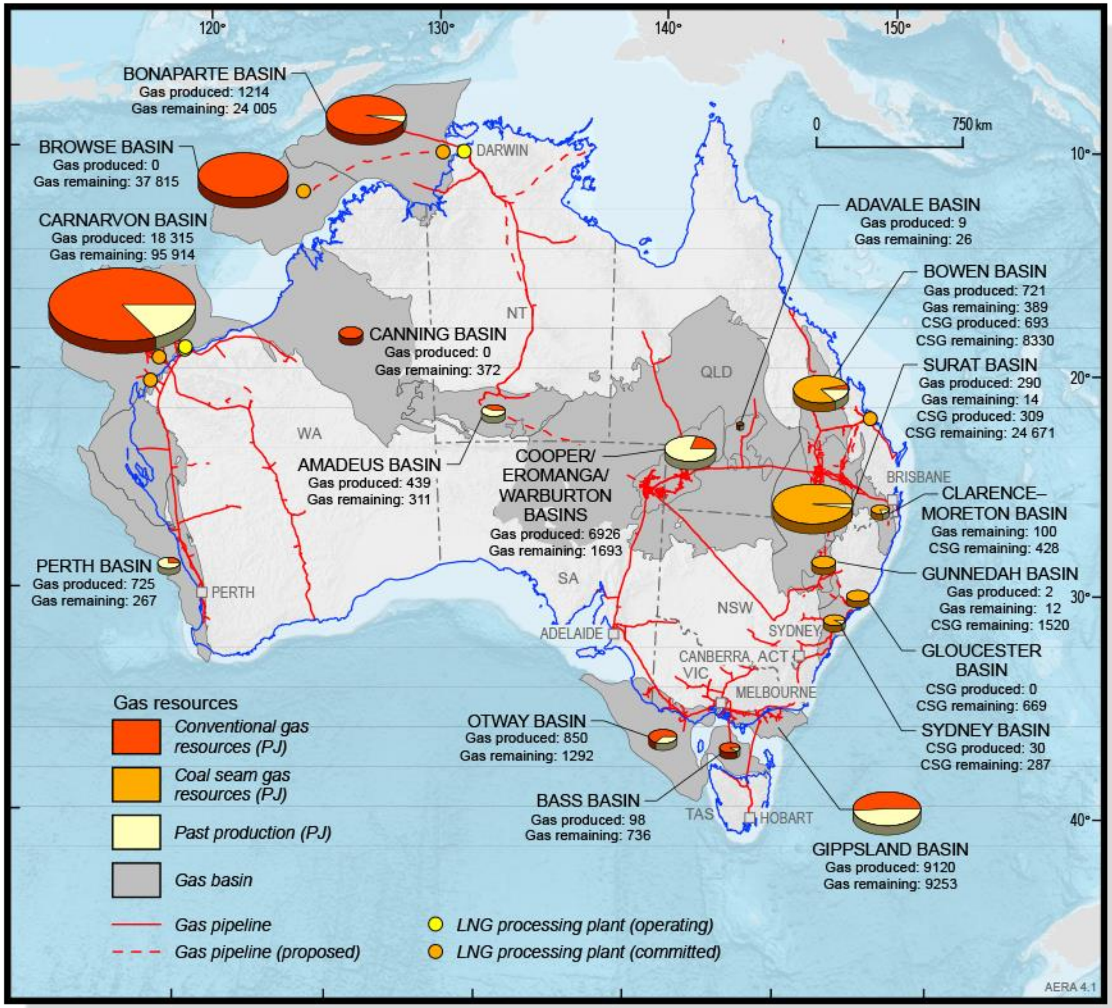
- World’s third largest LNG exporter in **2012**, and expected to be the second largest by **2016** and the largest by **2020**
- Seven LNG projects under construction, amounting to **A$190 billion** of capital expenditure and **61.8 million** tonnes of potential new capacity
- Opportunities exist in **upstream** (well drilling), **midstream** (pipeline maintenance) and **downstream** (liquefaction facility services) activities

Australia's LNG projects

	Project under construction	Company	Value (A$b)	Capacity (Mt)
2014	Queensland Curtis LNG (QLD)	QGC (BC Group), CNOOC, Tokyo Gas	$20	8.5
2015	Gorgon LNG (WA)	Chevron, Shell, ExxonMobil	$52	15.6
	Gladstone LNG (QLD)	Santos, Total, Petronas, KOGAS	$18	7.8
	Australia Pacific LNG (QLD)	Origin Energy, ConocoPhillips, Sinopec	$25	9
2016	Wheatstone (WA)	Chevron, Apache, Kuwait Foreign Petroleum Exploration Company	$29	8.9
2017	Prelude (WA)	Shell, INPEX, KOGAS, CPC	$13	3.6
	Ichthys (NT)	INPEX, Total	$33	8.4
TOTAL			**$190**	**61.8**

Source: Bureau of Resources and Energy Economics

Operational support and maintenance opportunities



- Pipes and pipelines
- Drilling downhole technology
- Well completion services/ flow control/remote well systems
- Environment protection
- Production and processing equipment
- Gas treatment and processing
- FLNG/marine operations/ subsea technology
- Protection and coatings
- Security
- Inspecting and testing

Tap into global and local supply chains and expertise

Provide operational support and maintenance services to multinational oil and gas firms

Reduce risk by spreading activities across different customers, geographies, sub-sectors and projects

Minimise costs by using local supply chain networks to enter into partnerships and joint ventures

Participate in and **benefit from R&D** with world-class research institutions

Opportunities in mining equipment, technology and services (METS)

- **A$90 billion** local industry;
  270+ METS firms
- Active across entire supply chain, including **exploration, mine safety, software** and **environmental management**
- Multinationals operating in Australia prefer their **METS suppliers** to be co-located
- **Demand for solutions** that streamline production and improve asset management and maintenance as resources sector transitions from production to investment phase
- **R&D opportunities** with public and private organisations

Opportunities in energy efficiency and renewables

Energy efficiency and **renewables** are emerging industries with enormous growth potential in Australia. As the country moves to a **less carbon-intensive economy**, its diverse renewable energy sources and access to innovative R&D provide significant prospects for international investors.

Growing demand for renewables

Australian Government is aiming to **reduce greenhouse gas emissions** below 2000 levels by 2020

Proposed Emissions Reduction Fund will provide an incentive for businesses to **cut emissions**

Regulatory mechanisms to encourage energy efficiency among public and private organisations

Opportunities to invest in and provide off-grid solutions, including to **energy-intensive industries** such as mining

Diverse renewable energy resources

Wind
potential for large-scale grid-connected wind farms

Solar
potential for small- and large-scale grid-connected systems and off-grid remote locations

Geothermal
opportunities for demo projects offering ‘first-mover’ advantages

Ocean
substantial resources available for development as technology approaches commercialisation

Bioenergy
second-generation technologies will open up new feedstock for biofuels and electricity generation.

A gateway to Asia

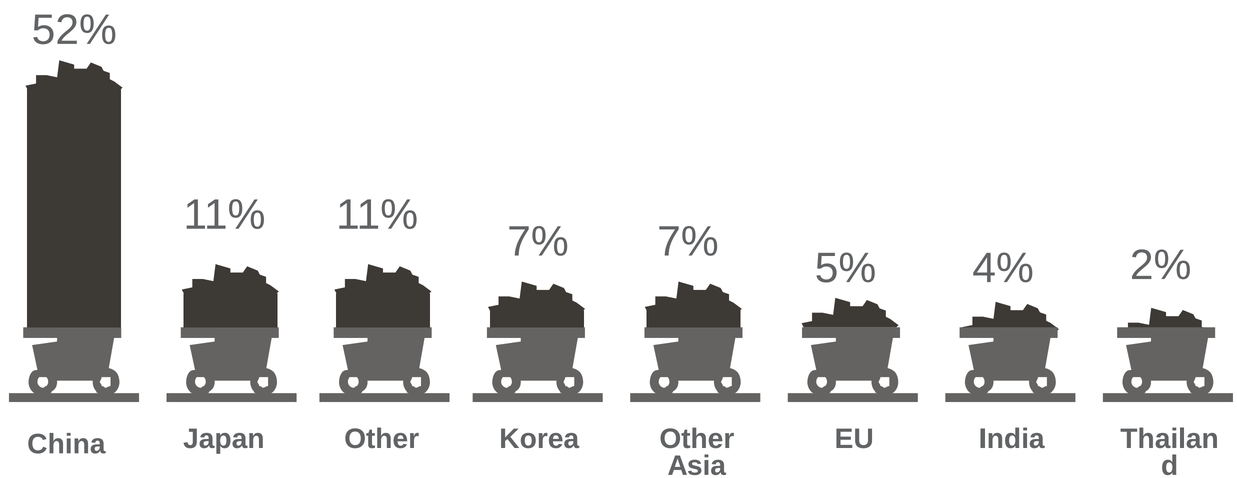
- **10 of Australia's top 12** export markets are in Asia
- **Strong** trade, investment and cultural **ties**
- **Geographically close** to major Asian markets
- Seven **Free Trade Agreements**, nine in development
- **Extensive logistics network** that offers frequent, timely services to Asia
- **Asian resources firms** in Australia include Baosteel, China Steel Group, Formosa, KOGAS, Mitsui, POSCO, Samsung and Sinopec

Export destinations

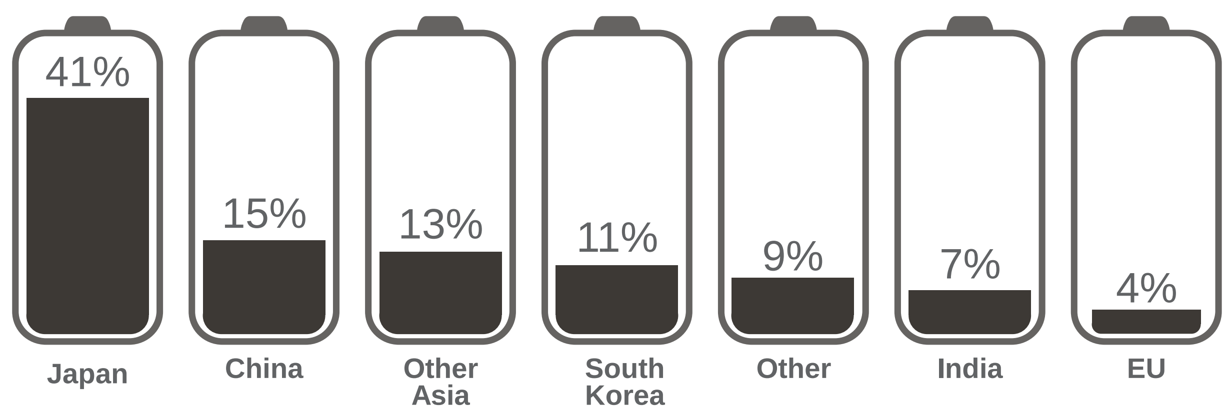
More than 80%

of Australia's resources and energy commodities are exported to Asia

MINERALS
A$104.1b (2012–13)

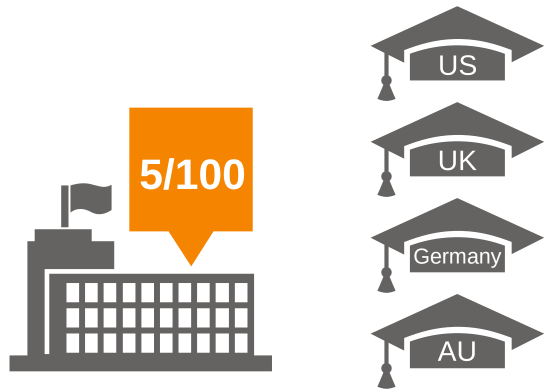


ENERGY
A$69.5b (2012–13)

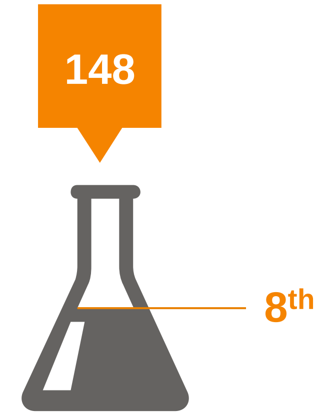


Innovation credentials

R&D expenditure
11th in OECD



5 of the world's
top 100 universities;
4th behind US, UK, Germany



Australia`s Quality
of Science Research
Institutions ranked 8th
of 148 economies

World-class R&D institutions

- **CSIRO:** ranked in top one per cent of scientific institutions worldwide in 15 of 22 research fields. Minerals Down Under Flagship works to increase the mineral industry’s productivity and reduce its environmental footprint

- **Cooperative Research Centres (CRCs):** Six CRCs active in resources and energy

- **Public R&D facilities**, including Australian Resources Research Centre and Minerals and Energy Research Institute of Western Australia.

A supportive government

Australian Government is investing more than **A$125 million** in resources and energy sub-sectors

Exploration Development Incentive
allows eligible exploration companies to deduct greenfield exploration costs against taxable income

Single, streamlined approval process for **environmental assessments** and approvals

R&D Tax Incentive of up to **43.5%**
for eligible businesses

Workplace relations framework and working visa requirements currently **under review**.