

Australian Government

AUSTRALIA'S ENERGY AND MINERAL RESOURCES INVESTOR GUIDE

Department of Industry, Science, Energy and Resources

Minister for Resources, Water and Northern Australia The Hon Keith Pitt MP Secretary: Mr David Fredericks PSM

Geoscience Australia

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AUSTRALIA'S ENERGY AND MINERAL RESOURCES INVESTOR GUIDE

Your guide to investing in Australia's energy and mineral resources

Australia offers untapped and exciting opportunities for resource development

The Australian resources sector is one of the largest and most advanced in the world. Our extensive natural onshore and offshore petroleum reserves, abundant mineral resources, well-established mining industry and world-leading mining equipment and technology

services sector make Australia an exceptional destination for global resources investment.

Your decision to invest in Australian resources and energy ensures you are engaging in a highly profitable industry supported by a transparent regulatory environment, highly educated and innovative workforce and within close proximity to high-growth Asian markets. The Australian mining industry is a world leader in sustainable resource management and mine safety.

Australia is an under-explored continent with highly prospective geology. To help you get started, Australia boasts the world's most advanced pre-competitive geological intelligence detailing the potential mineral, energy and groundwater resources concealed beneath the surface. Significant discoveries continue to be made and progressed through to development. Over the last five years, more than \$310 billion of new and expansion projects have been completed and a large range of developing energy, bulk, base, precious and critical mineral projects offer exciting investment opportunities.



Australia's mining sector in 2018–19 accounted for

58% of goods and services exports





247⊕ 000∳

jobs in Australia's resource industry



Project pipeline



\$137–216+ billion feasibility stage

<u>⊇(</u>

\$30 billion committed projects Tungsten, Uranium, Vanadium, Zinc and Zircon **Production**

Rutile, Silver, Tantalum, Thorium, Tin,

Antimony, Bauxite, Black Coal, Brown Coal, Cobalt, Copper, Diamond, Gold, Ilmenite, Iron Ore, Lead, Lithium, Magnesite,

Manganese, Nickel, Niobium,

Our top five world rankings

Resources

are promising

Antimony, Bauxite, Black Coal, Cobalt, Copper, Diamond, Gold, Ilmenite, Iron Ore, Lead, Lithium, Manganese, Rare Earths, Rutile, Uranium, Zinc and Zircon

Exports

Iron Ore, Coal, Alumina, LNG, Tin, Copper, Zinc, Gold, Manganese, and Lead

Average profit margins in 2017–18

Iron Ore 38% Coal 34% Silver, Lead & Zinc 26% Bauxite, Nickel & other minerals 15% Gold 15%



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billion invested into research and development over the last six years



World leading

technology

innovation and

World's largest robot — Rio Tinto's self-driving train hauls iron ore from mine to port in the Pilbara

World's largest floating vessel — Shell's Prelude floating liquefied natural gas facility located 155 nautical miles off the northwest coast of Australia



\$310 billion projects completed in the last five years

World-class energy resources

Australia's non-renewable energy resources include fossil fuels (coal, natural gas and petroleum) and nuclear energy fuels (uranium and potentially thorium). Australia has particularly vast identified resources of coal, natural gas and uranium. Production levels of these resources remain high allowing Australia to be a net energy exporter.

Oil and gas resources

Australia's LNG industry has rapidly developed to become one of the world's largest exporters, supplying customers through a series of hubs around Australia's western, northern and eastern ports.

The North West Shelf (NWS—Northern Carnarvon, Roebuck, Browse and Bonaparte basins) is Australia's largest petroleum-producing region containing over 70% of Australia's oil and gas resources. This major offshore region hosts numerous commercial accumulations of natural gas as well as many producing oil fields.

In 2014, a new oil province was discovered in the Roebuck Basin (Bedout Sub-basin), which until then was an underexplored part of the NWS. The discovery has triggered enormous industry interest which has translated to multiple applications for exploration permits in adjacent areas.

Currently, the largest developments of natural gas on the NWS are Ichthys, Prelude and Gorgon. The INPEXoperated Ichthys field is being produced via an 890 km long pipeline to facilities in Darwin. The Shell-operated Prelude field is being produced onsite via the world's largest floating LNG vessel. Production of the Chevronoperated greater Gorgon area includes the subsurface storage of carbon dioxide on the Barrow Island facility.

The Surat and Bowen basins in Queensland are Australia's major coal-seam gas-producing basins, accounting for more than 10% of Australia's gas production. Much of the coal-seam gas resources in the eastern coal basins are being converted to LNG and exported from three production facilities in the Gladstone area.

The Cooper Basin in South Australia and Queensland is the main onshore petroleum province. It accounts for

12% of Australia's oil production and 6% of conventional gas production.

The onshore Perth Basin in Western Australia has been a producing gas province over many decades. The available resource volumes were recently expanded through discoveries at Waitsia, Beharra Springs and West Erugella.

Offshore Victoria has produced, over the past 50 years, nearly 5 billion barrels of oil and over 9.8 trillion cubic feet of gas from the Gippsland Basin where exploration and development activities continue. The Otway Basin has emerged as a reliable gas producing province and recent farm-ins by national and international energy companies demonstrate the high potential to discover additional resources for the southeast-Australian gas market.

The Beetaloo Sub-basin in the Northern Territory is currently being explored for its vast amount of shale gas. Strong industry interest is evident in the greater Beetaloo region which offers multiple investment opportunities for resource development.

Coal resources

Australia is the world's largest exporter of black coal. The coal export industry is serviced by 10 coal terminals at six ports along the eastern coast of Australia. Port Waratah in Newcastle (New South Wales) is the largest coal export port in the world. Hay Point (Queensland) is one of the largest coal-loading facilities in the world.

Queensland hosts major coal deposits in the Surat, Bowen, Galilee and Clarence-Moreton basins. New South Wales contains a number of large and high-quality resources for coal including major deposits in the Hunter Valley, Gunnedah, Illawarra and Lithgow regions.

Uranium resources

Australia has the world's largest Economic Demonstrated Resources of uranium and is the world's third largest uranium producer. Australia also has the third largest reserves of thorium in the world.

South Australia hosts the world's largest uranium deposit at Olympic Dam. Significant uranium deposits are also located in the Northern Territory and Western Australia.



An abundant and diverse range of bulk, base and precious minerals

Australia produces a vast range of mineral commodities. Over 70 types of mineral deposits of economic significance are known in very old (Archean) to very young (Quaternary) rocks and over a wide range of geological settings. From these, more than 23 mineral commodities are produced in significant amounts from about 300 mines, including world-class deposits of most major mineral commodities. Australia's rich mineral deposits and comprehensive geoscience data offer investors exceptional opportunities to develop low-cost and long-life assets.



Australia has worldclass deposits of most major mineral commodities



Western Australia produces all of Australia's nickel, lithium, tantalum, platinum group elements and rare earth elements, virtually all of the diamond and cobalt and about 98% of the iron ore. Western Australia also produces 69% of Australia's gold and major portions of the nation's bauxite, mineral sands and manganese ore.



The Pilbara region supplies over half the world's iron ore.

The Eastern Goldfields region, including Kalgoorlie, contains major gold, nickel and lithium mines.



South Australia has significant copper, gold, uranium and mineral sands deposits.

*This map is diagrammatic only.

Olympic Dam is the world's largest uranium deposit, third largest gold deposit and fifth largest copper deposit.

6 Queensland and the Northern Territory are home to Australia's largest copper producing region, extending from Mount Isa in Queensland to the McArthur River in the Northern Territory.

The Weipa region in northern Queensland hosts substantial reserves of bauxite and several operating mines supported by processing, port and power facilities.

8 Charters Towers in Queensland is a major gold province where production has continued for more than 100 years. 9 The huge Broken Hill lead-zinc-silver mine in New South Wales, is still in production even after more than 120 years of mining. It is the birthplace of global mining giant BHP Group Limited.

Large gold and copper mines occur in the central west of New South Wales at Northparkes, Cadia, Ridgeway and Cowal.

Victoria's notable mineral deposits and mining operations include gold mines in the west and centre of the state, which was one of the world's major gold producing regions during the 19th century and holds the world record for largest gold nugget ever found.

12 Tasmania produces almost all Australia's tin and hosts over 20% of Australia's economic resources of tungsten.

A world leader in the exploration, extraction, production and processing of critical minerals





Critical minerals—essential for modern computing, manufacturing, energy, medical and transport technologies—are already a multi-billion dollar industry in Australia, with many new projects at advanced stages of development. The range of metals, nonmetals and mineral elements available for mining is increasing with exploration investment.

The importance of rare earth elements and other critical minerals stems from their unique catalytic, metallurgical, nuclear, electrical, magnetic, and luminescent properties. The growing significance of these minerals is demonstrated through their use in the manufacture of mobile phones and computers, flat-screen monitors, wind turbines, electric cars, solar panels, rechargeable batteries, defence industry technology and products, and many other high-tech applications.

As demand for critical minerals grows, there are significant opportunities in Australia to invest in existing projects and to explore our significant geological reserves.

Australia has the third largest reserves of lithium and is the largest producer of lithium in the world. Australia is ranked sixth in the world for rare earth element resources and second for production, yet many of these deposits remain untapped. Australia also has large resources of cobalt, manganese, tantalum, tungsten, and zirconium.

With world-leading expertise in resource extraction and processing, high-tech engineering and renewables research, Australia offers investors the opportunity to reduce supply chain risks and develop resources to support growing world demand.



*Carbon includes the production of coal and diamonds as well as the critical mineral-graphite-currently in development.

Building Australia's clean hydrogen export industry

Australia aspires to become a leading global supplier of hydrogen. There is significant momentum in Australia, both federally and at the state level, to develop a hydrogen production industry. Although not readily available in its natural form, hydrogen can be produced as a gas and used for a variety of everyday tasks and industrial uses. These include, heating and cooking (as a replacement for natural gas), transportation (replacing petrol and diesel), industry (as an alternative chemical feedstock), and energy storage (mostly by converting intermittent renewable energy into hydrogen).

The key benefit of using hydrogen is that it is a clean fuel, emitting only water vapour and heat when combusted, which means that its use could make a significant impact on reducing CO_2 emissions to the atmosphere.

In November 2019, the Council of Australian Governments released Australia's National Hydrogen Strategy, a road map to establish a hydrogen industry in Australia. Australia has vast physical resources that could support a large-scale hydrogen industry, including abundant land, excellent wind and solar resources, coastal water supplies, fossil fuels and geological storage sites. Australia is also geographically close to Asian markets, to countries that are seeking to reduce their CO₂ emissions by transitioning to hydrogen-based economies.

Both hydrogen produced with renewable energy and hydrogen from fossil fuels with carbon capture and storage are considered prospective. Australia has over 200000 square kilometres of land that is highly prospective for renewables-based hydrogen production.



Australia has over 200 000 square kilometres of land that is highly prospective for renewables-based hydrogen production

Advanced pre-competitive geological intelligence

Australia's resources sector is underpinned by highly prospective geology. To support investment in resource development, the Australian Government has undertaken extensive geoscientific surveys across the entire country. Australia boasts the most comprehensive and advanced geological intelligence, databases and information on proven and underexplored mineral systems.

Australia's pre-competitive data is freely available to support and de-risk resource decision-making and investment. A wealth of data is available online through the following resources.







Exploring for the Future

The *Exploring for the Future (EftF)* program is a \$100.5 million initiative by the Australian Government dedicated to boosting investment in resource exploration in Australia.

This four-year program focuses on using innovative techniques to gather new geological data and information on an unprecedented scale across the entirety of northern Australia and parts of South Australia. The program's activities involve data acquisition, geophysical surveys, geochemical sampling, hydrological mapping and stratigraphic drilling.

Since beginning in 2016, a wealth of new pre-competitive data has been made publicly available via the EftF website.

ga.gov.au/eftf

Australia's Identified Mineral Resources

Information on mineral resources in Australia, their uses, production and export figures, resource estimates and links to Australian and world mineral statistics.

AUSGIN Geoscience Portal

A data discovery and analysis portal for geoscience data from all of Australia's state, territory and federal governments. It includes mines, mineral deposits and mineral resources data, as well mineral tenement boundaries, infrastructure, geophysical and geological data.

geoscience.gov.au

Australian Energy Resource Assessment

Australian Energy Resources Assessment (AERA) provides an integrated scientific and economic assessment of Australia's non-renewable and renewable energy resources (including coal and uranium) for decision makers. AERA is produced with the support of the Australian Renewable Energy Agency.

aera.ga.gov.au

ga.gov.au/aimr

Gateway to Asia

Australia has well-established export links to high-growth Asian markets. These are supported by free trade agreements and efficient logistics and shipping networks. The Australian minerals and petroleum industry operates highly efficient private rail systems and is a major customer of public rail transport throughout Australia. The industry is also supported by public and privately-built road facilities and air services—the latter being used for transporting precious metals, key supplies and personnel to and from remote and regional areas.

In recent years, the minerals and petroleum industry, along with other private investors and government agencies, have invested in new rail and port infrastructure to support resource development. Industry and government are also planning for further capacity building to ensure the provision of transport infrastructure (including port and related facilities) to meet the expanding needs of Australia's trade.





Major commodity exports to Asia in 2018

*1	CHINA	•	JAPAN	INI 🛞	DIA
Iron Ore Coal LNG Gold Copper Zinc Oil	\$51.4b \$14.3b \$14.3b \$5.8b \$3.9b \$1.8b \$0.8b	LNG Coal Iron Ore Copper Aluminium Zinc	\$19.1b \$19.0b \$5.1b \$1.7b \$1.5b \$0.2b	Coal LNG Copper Iron Ore	\$11.0b \$0.9b \$0.7b \$0.5b
	SOUTH KOREA	OTHER ASIA Taiwan, Hong Kong, Thailand, Malaysia, Indonesia, Singapore, Philippines, Vietnam			
Coal	\$7.3b	Gold	\$9.7b		
LNG	\$5.3b	Coal	\$5.2b		
Iron Ore	\$3.8b	Oil	\$4.6b		
Aluminiun	n \$0.9b	Copper	\$2.0b		
Oil	\$0.8b	LNG	\$1.7b		
Zinc	\$0.7b	Iron Ore	\$1.4b		
Copper	\$0.5b	Aluminium	\$0.7b		
		Zinc	\$0.6b		

Source: ABS, International Trade in Goods and Services, Australia, cat. no. 5368.0; International Trade Centre International Trade Statistics 2001–2018. All monetary values used in this document are in Australian dollar terms.

Invest in a better future

Australia has a long history of supportive natural resource policies, political stability and openness to international investment. The Australian Government, through federal, state and territory jurisdictions, has developed transparent legislative framework that provides the foundation to achieve responsible and productive development outcomes. Complying with Australian law and regulations paves the way for the long-term sustainable, ethical and environmentally responsible development of world-class mines to ensure the safety of your employees and long-term commercial success.

Sustainable and responsible development

The Australian mining industry is at the forefront of the global pursuit of sustainable development and *United Nations Sustainable Development Goals (SDG)*. Australia has developed advanced capabilities in environmental and water management as well as innovative approaches to community engagement and development. Environmental

accountability and social responsibility underpinned by transparent governance are helping mining companies achieve long-term prosperity and commercial success.

Responsible mining depends on excellence in mine safety and health as well as optimising the extraction of the mineral resource, or resource efficiency. The Australian mining industry has invested heavily in personnel, training, innovative technologies and services to ensure that the highest environmental, safety and community standards are achieved from exploration through to mine rehabilitation and closure.

Mine health and safety

Safety in mining operations and the health of mine workers are of the utmost importance to Australia's mining industry and government. The Australian mining industry is a world leader in health and safety performance and is committed to being an industry free of fatalities, injuries and diseases.

In Australia, individual state and territory governments are responsible for regulating health and safety at mine sites within their jurisdiction, through state-based work health and safety legislation for the mining sector. While each state and territory has its own legislation, all adopt a general duty of care, which requires the operator of a mine to ensure the health and safety of workers and other people are not put at risk as a result of activities at the mine.



Community and indigenous engagement

Australians in both remote and urban areas take a genuine and active interest in how local or neighbouring land is accessed and used. Demonstrating a commitment to effective and early engagement with local communities, in particular indigenous communities, is a critical and ongoing process for mining proponents across Australia.

Australian law, through the *Native Title Act 1993*, recognises and protects native title, carefully balances the interests of indigenous people, miners, pastoralists and other land users, and ensures governments can continue to improve infrastructure and manage natural resources.





Supportive and transparent governance welcoming your success

Australia has three tiers of governance—federal, state or territory and local governments. The Australian Government and state and territory governments provide a range of support programs and initiatives to promote exploration and development of Australia's mineral and petroleum resources. Mineral and petroleum resources are owned by governments rather than private individuals. However, none of the three tiers of government engage in commercial exploration and development—the private sector initiates exploration, undertakes subsequent mining activities and pays a royalty to the government.

Investors will need to connect with various agencies across each tier of government when investing in Australia's minerals and petroleum resources.



Australian Government

Sets national policy including fiscal, monetary and taxation policy, foreign investment guidelines, immigration, competition policy, trade and customs, company law, international agreements, native title and regulates operations in offshore waters.

Austrade	Provides international investors with the information needed to establish or expand a business in Australia.
	austrade.gov.au
Australian Taxation Office (ATO)	Australia's principal revenue collection agency. The ATO administers tax schemes that impact mineral and petroleum exploration, development and production.
	ato.gov.au
Department of Home Affairs (DHA)	Administers a range of temporary and permanent visa options for business personnel, investors and skilled workers. The department also has carriage of Australia's tariff and customs duties.
	homeaffairs.gov.au
Department of Industry, Science, Energy and Resources (DISER)	Provides programs, services and assistance to help existing and new businesses succeed and grow.
	industry.gov.au and business.gov.au
Critical Minerals Facilitation Office (CFMO)	The government's central coordination point to help grow Australia's critical minerals sector and position Australia globally as a secure and reliable supplier of critical minerals.
	industry.gov.au/criticalminerals
Major Projects Facilitation Agency (MPFA)	For major projects worth over \$50 million, MPFA provides assistance to help navigate through Australia's regulation and approval process.
	mpaa.gov.au
Office of the Chief Economist (OCE)	Provides independent economic research, data, analysis and advice on issues affecting Australia's energy and resource sectors.
	industry.gov.au/office-of-the-chief-economist
Geoscience Australia	Australia's trusted advisor on the geology and geography of Australia—providing the world's most advanced geological intelligence.
	ga.gov.au
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	Australia's national science agency and one of the largest and most diverse research agencies in the world. CSIRO regularly partners with companies in technology-intensive sectors, such as mining, to transform research into real-world results.
	csiro.au
Foreign Investment Review Board (FIRB)	Examines proposed investments in Australia that are subject to foreign acquisitions and takeovers.
	firb.gov.au

State and territory governments

Manage and allocate mineral and petroleum property rights onshore and in coastal waters, have primary responsibility for land administration, regulating operations (including environmental and occupational health and safety) and collecting royalties on the minerals produced.

Australian Capital Territory Government	Chief Minister, Treasury and Economic Development Directorate business.act.gov.au		
New South Wales Government	Department of Planning, Industry and Environment resourcesandgeoscience.nsw.gov.au		
Northern Territory Government	Department of Primary Industry and Resources dpir.nt.gov.au		
Queensland Government	Department of Natural Resources, Mines and Energy dnrme.qld.gov.au		
Government of South Australia	Department for Energy and Mining energymining.sa.gov.au		
Government of Tasmania	Department of State Growth mrt.tas.gov.au		
Government of Victoria	Department of Jobs, Precincts and Regions djpr.vic.gov.au		
Government of Western Australia	Department of Mines, Industry Regulation and Safety dmirs.wa.gov.au		

Local governments operate at city, town or shire/district level and have responsibility for handling community needs such as waste collection, public recreation facilities and town planning.



Industry support and engagement

Australia's mining sector is supported by a number of organisations including industry groups and governmentfunded initiatives which aim to increase productivity and innovation within the industry.

Association of Mining and Exploration Companies	Industry association representing explorers, emerging miners, producers, and associated businesses. amec.org.au
Austmine	An industry body representing the Australian mining equipment, technology and services sector. austmine.com.au
Australian Petroleum Production and Exploration Association	The peak body representing Australia's oil and gas exploration and production industry. appea.com.au
Industry Capability Network	An independent networking organisation that connects local suppliers and service providers to meet the requirements of local projects. icn.org.au
METS Ignited	Works with Australian suppliers to the mining industry, global miners, research organisations and capital providers to improve the competitiveness and productivity of the Australian mining equipment, technology and services (METS) sector. metsignited.org
Minerals Council of Australia	Represents Australia's exploration, mining and minerals processing industry, promoting and enhancing sustainability, profitability and competitiveness. minerals.org.au
Mining and Energy Services Council of Australia	Industry body that helps members to keep informed, network and increase business opportunities with project proponents, including engineering, procurement and construction managers. mesca.com.au
National Energy Resources Australia	Industry-led, government-funded initiative to grow collaboration and innovation to assist the oil, gas and energy resources sector manage cost structures and productivity. nera.org.au
Subsea Energy Australia	A not-for-profit industry association formed to promote Australia's subsea capabilities to local, regional and global markets. subseaenergy.org.au

Cooperative Research Centres

The Cooperative Research Centres (CRC) program is an Australian Government initiative that forms collaborative partnerships between industry and publicly funded researchers to address the major challenges facing Australia. There are CRCs with a particular emphasis on resources and energy.

Mineral Exploration CRC (MinEx CRC)	The world's largest mineral exploration collaboration bringing together industry, government and research organisations minexcrc.com.au
CRC for Optimising Resources Extraction (CRC ORE)	Aims to transform the minerals sector by deploying innovative world-class technology to effect a step change in value across the whole-of-mine system. crcore.org.au
Future Battery Industries CRC (FBI CRC)	Aims to position Australia as a global leader in industry focused research into the rapidly transforming battery value chain. fbicrc.com.au



Frequently asked questions

How do I obtain permission to mine onshore?

Onshore mineral and petroleum exploration and development in Australia's states and the Northern Territory are administered by the relevant agency of each jurisdiction. While all states and the Northern Territory have their own laws governing mineral activities, they are very similar in content and administration. It is extremely important that interested persons consult the relevant state/territory laws, regulations and guidelines to ensure they understand the current requirements of the jurisdiction(s) in which they are interested.

In Australian mining and petroleum legislation, there are several basic stages in the development of a mine or a petroleum field:

1. Initial exploration

The exploration licence/permit generally provides the holder with a sole right of access to land to carry out conditional exploration activities and sampling for a range of minerals. The holder of exploration tenure also has priority for mining and petroleum production lease applications and retention of tenure over the permit area.

2. Further detailed exploration and assessment (possibly under a retention licence)

Retention licence holders can generally undertake exploration and pilot development if they choose and have approval to do so. In most instances, retention licence holders are required to demonstrate on a periodic basis their continued efforts to prove that the explored-for resource is potentially viable.

3. Mining or petroleum production

A mining, production or gas storage lease generally grants the holder the right to produce minerals and/or energy resources (usually a specified list) and to then sell or otherwise use or dispose of the substances or energy produced.

4. Closure and rehabilitation of a mine or petroleum field after completion of production

Environmental management of mining, petroleum, geothermal energy and gas storage projects in Australia is based on the integration of all phases of resource exploration, planning, development and production—from assessment, through construction, operation and closure to rehabilitation.

5. Environmental approval (all stages)

Environmental approval is a critical aspect of the broader mining and petroleum approvals process and occurs concurrently with each of the above stages. The states and Northern Territory are the main authorities for environmental management of mines, petroleum, geothermal energy and gas storage projects within their respective jurisdictions. Mining and energy projects may also require an environmental impact assessment under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).*

A quick reference to tenement distribution and status is available through the Geoscience portal at **portal.geoscience.gov.au** and more detailed information may be obtained from the relevant state/Northern Territory agencies.



What is involved in obtaining approval for offshore work programs?

In Australia, offshore petroleum exploration and development is regulated by a title system that ensures the orderly exploration for, and production of, offshore petroleum. Offshore petroleum titles are awarded on a competitive basis, beginning with an exploration permit that is the result of a successful bid on an acreage release area. If a discovery is made during the exploration phase and a location is declared, the titleholder may apply for a production licence if the discovery is commercial, or a retention lease if the discovery is not commercial but is expected to become commercial within 15 years. From a retention lease, the titleholder progresses to a production licence once the discovery becomes commercial.

What is the Offshore Petroleum Exploration Acreage Release?

Offshore Petroleum Exploration Acreage Releases are a key part of the Australian Government's strategy to promote petroleum exploration in Australia's offshore waters. The Acreage Release is underpinned by comprehensive pre-competitive geological and geophysical datasets to support industry's exploration efforts and company work program bids for acreage.

Foreign investors can participate in bidding for offshore acreage but must receive foreign investment approval prior to acquiring an interest in an exploration permit issued under the program.

The main steps in the acreage release cycle are:

- Nominations invited—the Australian Government invites nominations for areas for inclusion in the next acreage release. The nomination process ensures areas that are of interest to commercial parties are considered.
- Short-listing—based on the nominated areas, the Australian Government shortlists the nominated areas and checks for potential conflicts with sensitive areas (e.g. marine parks, maritime boundaries)
- The Australian Government undertakes consultation on the shortlisted areas. This is undertaken in two phases:
 - » Phase 1-consultation process with agencies in Commonwealth and state/territory jurisdictions with direct responsibility for managing the marine environment.
 - » Phase 2—the proposed areas are made available for public comment.

- The Australian Government Minister responsible for energy resources formally releases the areas for work program bidding.
- Companies are able to submit bids on the release area they wish to explore, The National Offshore Petroleum Titles Administrator (NOPTA) assesses all submitted bids according to publicly available criteria. An exploration permit is granted to the bidder who proposes an exploration strategy and work program that will significantly advance the assessment and understanding of the petroleum potential of the area and is likely to result in a new discovery. Financial standing and a satisfactory record of past performance are also important assessment criteria.

How are royalties levied on minerals?

The state and territory governments generally own, on behalf of the community, all mineral resources in their jurisdictions and regulate the access to, and development of, these resources. Compensation in the form of royalties is paid to the jurisdiction for the extraction and sale of its mineral assets. Royalty systems and rates vary across the jurisdictions and commodities but are generally imposed as a percentage of the value of production or, less commonly, the volume of production. Royalty payments are a deduction for company income tax purposes.

Royalty systems can be any one of the following:

- a specific rate royalty (a fixed dollar amount per unit of mass, e.g. per tonne)
- a fixed percentage of production value
- a profit-related or rent-based royalty
- a hybrid royalty with a fixed percentage of production value combined with a profit component.

Royalties are generally levied at the mine mouth or on what is termed a 'free on board' basis. A range of allowable deductions apply in each case when calculating the value for royalty purposes.

Profit-related royalty regimes also vary for the type of minerals extracted and in the respective state and territory jurisdictions. Where profit-based royalties do apply, they tend to incorporate elements of both fixed percentage of production value and profits-based regimes. This system is project-based and profit is calculated by deducting allowable project costs from all project revenues.

Project costs may include:

- operating costs
- depreciation on project capital assets
- inventory adjustments

- interest on borrowings
- pre-development and exploration costs.

In some cases, jurisdictions will also implement exemptions or reductions in rates to address such issues as downturn in commodity prices, attracting new investment or encouraging processing within the jurisdiction.

Are petroleum commodities subject to excise and royalties?

Yes, oil and gas excise and royalties are payable in state and territory coastal waters and on the North West Shelf project. Royalties are levied at a rate of between 10% and 12.5% of the net wellhead value of all petroleum produced. Royalties are calculated by taking a percentage of the value of petroleum at the wellhead, less deductible processing, storage and transport costs. Commonwealth legislation provides an excise on all oil and gas produced from fields of greater than 30 million barrels. The first 30 million barrels produced from a field are exempt.

How is the Petroleum Resource Rent Tax applied?

The Petroleum Resource Rent Tax (PRRT) applies to both onshore and offshore petroleum projects. The PRRT is a profit-based project tax. It is applied at a rate of 40% to a project's taxable profit and is based on assessable receipts less general project expenditure, project exploration expenditure and project exploration expenditure transferred in from other associated PRRT projects.



The PRRT applies to upstream petroleum production, defined by the point at which a saleable commodity is first produced such as crude oil, condensate, natural gas, liquid petroleum gas (LPG) and ethane. Downstream processing or value-adding activities, such as liquefaction of natural gas (or LNG), which is categorised as a processed product, are not subject to PRRT. A gas transfer pricing formula has been developed to establish the upstream value of gas produced and consumed in an integrated gas to liquids project. This formula, known as the residual pricing method, ensures equitable and transparent valuation of the resource at the taxing point.

Payments of PRRT are deductible for company tax purposes in the year they are assessed and paid to avoid double taxation. Company tax is levied at the rate of 30%. PRRT and company tax instalments are payable quarterly in the year of tax liability. The PRRT is levied before company tax and its liability is incurred when all allowable expenditures have been deducted from assessable receipts.

For more information visit ato.gov.au

Can I bring my own workforce?

The Australian mining and petroleum industries have one of the most skilled and productive workforces in the world, complemented by advanced technologies. However, at times labour market demand may require companies to supplement the local workforce through migration pathways. Australia offers a range of temporary and permanent migration options for business personnel, investors and skilled workers to alleviate potential limitations in labour supply.

To obtain information about these migration options, visit the Department of Home Affairs website at **immi.homeaffairs.gov.au**





Attributions

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Operating equipment at Newcrest's Cadia gold and copper mine in New South Wales Minerals Council of Australia

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Truck preparations at Newcrest's Telfer gold and copper mine in Western Australia Minerals Council of Australia

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Marine Survey field trip Geological Survey of South Australia, @ Robert Lang Photography

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