

Li

# LITHIUM

## INVESTMENT OPPORTUNITIES

**WORLD-CLASS RESOURCE PROVINCE | SECURE INVESTMENT LOCATION**  
**WORLD-LEADING GEOSCIENTIFIC DATA | GLOBAL MINING SERVICES INDUSTRY**

### Mines, deposits and prospects



### Western Australia has a strategic advantage in the global demand for lithium

- The State has been the largest global lithium producer since 2016, and in 2018 generated >50% of global production from seven mining operations
- Western Australia continues to position itself as a battery minerals hub due to its proximity to key markets, shorter construction and ramp-up times and relatively low capital costs
- In 2018, production increased to 2.05 Mt sold with Mt Cattlin, Mt Marion; two projects at Pilgangoora recently commenced mining
- Tianqi Lithium's Kwinana lithium processing plant (Stage 1) was commissioned in 2019. Construction has begun at Abermarle's Kemerton lithium hydroxide processing plant. Both plants will source spodumene concentrate from the Greenbushes operation
- Covalent Lithium (Westfarmers/SQM JV) has proposed a third lithium refinery for Kwinana, to process ore from Mt Holland
- Capital expenditure in lithium mining projects that were committed or under construction at September 2019 was \$2558 million

**\$1652 m**  
Sales value



**2 051 327 t**  
Tonnes sold



**\$1262 m**  
Exports



**4500**  
Full-time employees



**\$6805 m\***  
Investment projects



**1st**  
Production world ranking



**5.0%**  
Royalty rate



(2018 calendar year)

\* Includes projects planned, possible, committed or under construction as of September 2019



Government of Western Australia  
Department of Mines, Industry Regulation and Safety

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Geological Survey of  
Western Australia



## Top lithium projects with resources

Resources estimated according to JORC

Project	Status	Company	Ore (Mt)	Av. grade (%)	Contained Li <sub>2</sub> O (Mt)
Greenbushes*	Operating	Talison Lithium	157.1	2.25	3.5
Wodgina†	Care and maintenance	Mineral Resources	259.2	1.17	3.0
Mt Holland	Feasibility study	Wesfarmers/SQM	189.0	1.50	2.8
Pilgangoora	Operating	Pilbara Minerals	220.5	1.26	2.8
Kathleen Valley	Feasibility study	Liontown Resources	74.9	1.36	1.0
Mt Marion	Operating	Mineral Resources / Jiangxi Ganfeng Lithium Company	71.4	1.37	1.0
Pilgangoora	Operating	Altura Mining	45.7	1.06	0.5
Bald Hill	Care and maintenance	Tawana Resources / Alliance Mineral Assets	26.5	0.97	0.3
Mt Cattlin	Operating	Galaxy Resources	16.7	1.28	0.2
Buldanina	Exploration	Liontown Resources	14.9	0.97	0.1
Pioneer Dome	Exploration	Pioneer Resources	8.2	1.23	0.1
Lynas Find‡	Exploration	Pilbara Minerals	5.5	1.53	0.1

 Mineralization style — pegmatite hosted

\* September 2015 resource, but mined continuously since then

† Includes tailings

‡ Linked to Pilgangoora (Pilbara Minerals)

Note: Totals have been rounded

## Lithium prospectivity of Western Australia

- Western Australia's lithium resources are ranked fourth globally with a maiden resource recently announced for the Buldanina Project (Liontown Resources)
- Lithium is used as a component of rechargeable lithium-ion batteries – driven by the growth of electric vehicles and energy storage system markets
- Lithium minerals in Western Australia occur in pegmatites and include spodumene, lepidolite, zinnwaldite, petalite and holmquistite

### For more information



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