



MINING

SNAPSHOT

MARCH 2015

The Resources Industry Training Council (RITC) is a state government funded joint venture between The Chamber of Minerals and Energy of Western Australia (CME) and the Australian Petroleum Production and Exploration Association Ltd (APPEA). It represents training and workforce interests of Western Australia's mining, oil and gas and downstream process manufacturing industries. A major function of the RITC is to work with key stakeholders to develop and implement innovative solutions to address skill shortages, changing workforce needs and vocational education and training policy issues.

The RITC produces annual workforce development plans which provide an overview of the RITC industries from the perspective of training and workforce development. Each industry plan highlights issues impacting on the industry environment, identified training and workforce issues, current and emerging skill shortages, and offers responsive training and workforce development policy solutions for industry. This document is a snapshot of the information contained in the 2013-14 industry workforce development plan.



RESOURCES

INDUSTRY

TRAINING

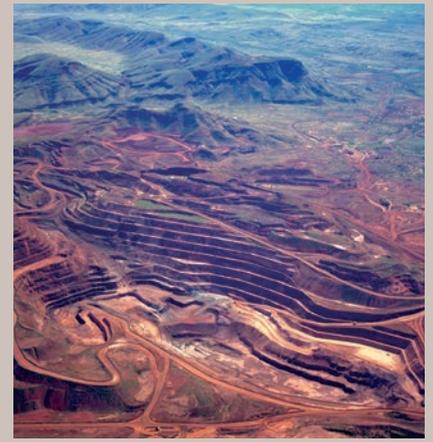
COUNCIL



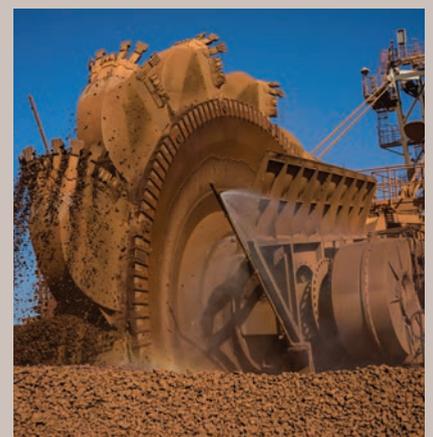
OVERVIEW

Over the past decade, the Western Australian economy has benefited from high levels of activity in the resources sector with mining being a major contributor to state growth, particularly in the post 2008 global financial crisis period. Since 2012 the mining industry has seen a moderation of activity as it transitions from construction to production. The volatility of international commodity prices, uncertainty in the international economic environment (particularly growth prospects in China) and increases in global supply for many commodities (notably iron ore) are placing pressure on resources sector companies to control costs in order to remain internationally competitive.

The rising cost of doing business in Western Australia stems from a number of contributing factors: declines in multifactor and labour productivity, imposed input costs (taxes and regulatory costs), environmental costs, increased labour costs, energy costs and costs associated with approvals processes. Effort is now geared towards innovation, process advancement and productivity improvement with a renewed focus on investment in asset management and productivity gains from existing operations. The use of technologically advanced products or services and the automation of equipment and processes are seen as two key mechanisms to achieving these outcomes.



The process of transitioning from construction to production will have a long lasting effect on the size and composition of the mining industry workforce. Although further reductions in direct workforce numbers are expected, the shift to operations will bring about sustainable long-term permanent jobs for higher skilled workers in the state, particularly in professional occupations. The need to develop and maintain a productive workforce in the current climate emphasizes the need for a continued focus on workforce planning to ensure a sustainable mining industry in Western Australia. This planning must address retention and attraction of skilled workers, high quality skills development, particularly in regional Western Australia, and mechanisms to increase opportunities for the participation of all in employment and skills development.



INDUSTRY ACTIVITY

Industry Contribution

Iron ore and gold accounted for 60 and 7.2 per cent of state growth (\$73 billion and \$8.7 billion) respectively in 2013/14. The state currently accounts for approximately 97 per cent of Australian iron ore production and approximately 70 per cent of gold production nationally. The two minerals accounted for nearly 90 per cent of total mineral sales in 2013 (iron ore 76 per cent and gold 10 per cent) and are primary contributors to mineral royalties received by government. Since 1983, a total of \$34 billion has been paid to the government in royalties, with \$10 billion of this being in the last two years alone (\$5.9 billion in 2013). Royalty income is projected to remain an important revenue source for government. In 2012-13 mining accounted for 29 per cent (\$71 billion) of Gross State Product (GSP) and 8 per cent (114,600) of total employment in Western Australia. Increased volumes and a weaker Australian dollar saw the value of the states' mineral and petroleum industry reach a record of \$121.6 billion in 2013-14 with iron ore retaining its position as the state's highest value commodity.

Employment

Employment in the mining industry peaked at 122,500 in August 2012 (approximately 8 per cent of total Western Australian employment) with a further 40,000 direct jobs in services and mining-related construction and manufacturing. Since then the mining sector has seen a decline in employment

mainly due to industry transition from construction to production, the fall in commodity prices and an uncertain global economy. In the first nine months of 2014, iron ore prices fell by 37 per cent hitting US\$75-\$85 per tonne range in October 2014¹. The decline has continued into 2015.

Commodity Prices and Projects

The decline in commodity prices has seen exploration expenditure stall and new investment decline. Mineral exploration fell by 22 per cent in the March quarter 2014. Iron ore exploration fell by 27 per cent in the June quarter 2014 relative to the same period in 2013 and gold exploration in Australia fell 34 per cent for the full 2013/14 year². However, committed and feasible projects have a strong forecast. In September 2014, a total of \$160 billion remained in committed projects and a further \$108 billion of major projects under consideration at the feasibility stage. In April 2014, BREE reported 11 completed resources projects in Western Australia valued at \$19.8 billion, a further 18 committed projects valued at \$115.7 billion and 44 projects valued at nearly \$58 billion under consideration³.

Technology and Workforce Skills Investment

Together with an increasing use of automated technology, the industry is also seeing a workforce shift to higher skill roles. Critical occupational groups within the resources development sector at the professional, trade and skilled worker level eased in 2013 and 2014 with figures showing the most common

occupational categories across the sector to be technicians and trades workers (34 per cent), machinery operators and drivers (25 per cent) and professionals (20 per cent)⁴. Companies are placing an emphasis on skill sets rather than qualifications for many surface mining roles. CME member companies spent around \$470 million on training activities during 2011-12, representing approximately 5.3 per cent of payroll, with apprentices and trainees comprising approximately 5 per cent of the resources sector



workforce. Nationally, the mining industry spent just over \$1.1 billion on training in 2011/2012, with almost 98 per cent of this expenditure being industry funded⁵. Indigenous apprentices and trainees accounted for 11 per cent of the total and female apprentices and trainees accounted for 13 per cent of the total⁶. Overall, the mining sector employs around 2 per cent of Australia's labour force⁷ with 19 per cent of the workforce in Western Australia being female and 4.2 per cent being Indigenous Australians⁸. Around 81 per cent of resources sector FIFO workers are sourced from the Perth/Peel region⁹.

^{1,2} Bureau of Resources and Energy Economics

³ Bureau of Resources and Energy Economics, Major Projects Report, April 2014

⁴ ABS, May Quarter 2014

⁵ Minerals Council of Australia Report, March 2013

⁶ NCVER on behalf of the Chamber of Minerals and Energy, 2013

⁷ ABS August 2014

⁸ CME 2013 Diversity Survey

⁹ Chamber of Minerals and Energy, State Growth Outlook 2013 (Pg. 24)

KEY ISSUES AND PRIORITY ACTIONS



Diversity in the Workforce

Attracting and retaining more women into the mining industry is a tangible way the industry can address skills challenges. It is estimated that in the period to 2020, the participation of women in the resources sector will increase by only 1.5 percentage points. Industry is encouraged to explore alternative, effective, best-practice approaches to increasing female participation and upward mobility. Employment and up-skilling of Indigenous Australians across the RITC industries remains an area of focus and it is anticipated that the share of Aboriginal Australians in the Western Australian resources sector will increase by 2.3 per cent by 2020¹⁰. Initiatives enhancing Indigenous workforce development and career progression along with recommendations from the Forrest Review require further support.

Skilled Labour Force

Accessing and retaining appropriately skilled labour continues to challenge the mining industry. Solutions to address these issues may lay around strategies surrounding the promotion of mining based careers to young and more mature people; retention tools such as training, work culture and employee engagement initiatives to improve industry retention rates.

Vocational Education and Training (VET)

The VET sector needs to be flexible, responsive and innovative if it is to remain relevant to the resources sector in training and up-skilling the local workforce with the skills needed in the future. Vocational training provision and delivery of training needs to be fit for purpose and relevant for employers. Industry concerns regarding the VET sector relate to issues of quality, depth of provider market and capacity to provide the training required.

Skill Sets and Funding

Current qualification structures and funding guidelines may discriminate against more flexible and innovative training solutions applicable to the resources sector context. The need for industry to improve labour productivity and reduce costs has also brought attention to the qualifications versus skill sets discussion.

Impact of Automation Technology

The growth of automation technology in the resources sector has significant ramifications on skill requirements. A focus needs to be placed on the development of appropriate VET products (qualifications, skill sets, competencies and learning

resources) and provider capacity and capability in this area to meet industry demand for automation related skills. The commercial nature of intellectual property associated with early adoption of automation is likely to present significant challenges for training providers.

Electrical Licensing

The Western Australian resources sector needs access to a relevant engineering based electrical qualification that will meet electrical regulator requirements for issuance of an electrician's licence. Collaboration is required to ensure appropriate professional development and support for the new Metals and Engineering (MEM) Training Package qualification is made available to training providers in Western Australia servicing the resources sector.



RII Training Package

The drilling industry has expressed a broad range of matters relating to the structure of drilling qualifications in the RII Training Package. As the industry relies on employment based training, it is essential that qualification structures reflect operations of the industry.

Resources Industry Training Council
Level 10, 2 Mill St Perth, WA, 6000
08 9220 8500
www.ritcwa.com.au

¹⁰ CME, Resources Sector Outlook 2015-2025