Resources for Recovery

Mining opportunities for a stronger NSW economy

August 2021 NSW MINERALS COUNCIL



NSW Minerals Council

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Contents

| About the NSW Minerals Council | 4 |
|---|----|
| Executive Summary | 5 |
| Why a strong mining sector is critical for NSW | 7 |
| The economic imperative for NSW | 7 |
| The current planning pipeline | 7 |
| The potential benefits for the NSW Economy | 9 |
| The potential regional economic benefits | 9 |
| Conclusion - seizing opportunities for NSW | 10 |
| APPENDIX A: 2021 PROJECT LIST | 11 |
| APPENDIX B: PROJECTS BY COMMODITY TYPE | 12 |
| APPENDIX C: EXTENSIONS/NEW PROJECTS BY COMMODITY TYPE | 13 |
| APPENDIX D: COAL PROJECTS BY COAL TYPE | 15 |

About the NSW Minerals Council

The NSW Minerals Council (NSWMC) is the peak industry organisation representing the State's \$36 billion minerals industry.

NSWMC provides a single, united voice on behalf of almost 100 members, ranging from junior exploration companies to international mining companies, as well as associated service providers.

Mining is and will continue to be a key economic driver for NSW. NSWMC works closely with government, industry groups, stakeholders and the community to foster a strong and sustainable minerals industry in NSW.

Executive Summary

The NSW Minerals Council has identified 32 mining projects in various stages of the planning and assessment process, including new projects extensions and modifications of existing operations, with the potential to generate significant economic activity for NSW.

The research, completed by the NSW Minerals Council, has analysed the potential economic benefits of all major mining projects currently in the NSW planning system, from initial EIS submission stage to approved projects still seeking related conditional approvals before mining can commence.

As NSW continues to be gripped by the effects of COVID-19, and we look to rebuild the economy, there has never been a more critical time to maximise the opportunities that this pipeline of job-generating projects presents.

The potential economic benefits include:

- Almost \$13 billion in direct capital investment in NSW, driving economic activity across the State, including in regional areas more than \$7 billion from metals projects alone
- Creating or maintaining over 17,500 direct construction and operation jobs, along with tens of thousands more jobs in businesses that support the mines
- From 23 of the 32 projects, over \$4 billion in royalties¹ for NSW and hundreds of millions more through other taxes and local community contributions to help fund schools, hospitals, police, infrastructure and other services across the state

The potential regional economic benefits to be delivered include:

- In the Hunter², over \$3.6 billion in capital investment and around 7,500 jobs
- In the Illawarra, almost \$1 billion in capital investment and around 1,700 jobs
- In the Central West, over \$4 billion in capital investment and over 2,700 jobs
- In the Far West, over \$2.7 billion in capital investment and almost 3,400 jobs
- In the Lithgow/Mudgee Region, over \$150 million in capital investment and over 600 jobs
- In the Gunnedah region, over \$1 billion in capital investment and over 1,400 jobs

The number of projects in the pipeline in this report is identical to the number of projects identified in NSWMC's previous report "*Mining for the Recovery*" released in July 2020³.

However there have been some changes to the projects in the pipeline.

Metals mining is deeply intertwined with the history and development of so many communities across regional NSW. Now, with the rapid development of new technology, there is growing demand for our high-quality metals and rare earths.

Technological advances in industries such as telecommunications, medicine, defence, renewables and energy storage are driving demand for gold, silver, copper, and other critical minerals. This is providing new opportunities for regional communities across the state.

The number of metals projects in the NSW planning pipeline has increased to 13 in 2021, up from 11 projects in 2020, highlighting the strong ongoing interest in the metals sector in NSW. Eight of these are proposals for new mines with tremendous potential for future economic growth in NSW.

These metals projects have the potential to deliver over \$7 billion in new direct investment and over 6,000 new jobs across the Central West and Far West of NSW, helping to take the economic development of these regions to the next level.

¹ Royalties are expressed in Net Present Value (NPV)

² Includes Lower Hunter and Upper Hunter

³ NSWMC Report - Mining for the Recovery <u>32 mining projects in planning pipeline - NSW Mining</u>

Coal continues to be NSW's most valuable export commodity, worth around \$16 billion in exports in 2021 as well as \$1.6 billion in royalties to the NSW Government.

Demand for NSW coal has remained strong despite the global pandemic, including with our top three traditional markets Japan, Korea, and Taiwan, as well as important emerging markets like India, Vietnam and the Philippines. This demand is expected to remain strong for at least the next two decades and we've also seen a significant surge in the coal price over recent months.

This is also driving opportunities, with a range of NSW coal projects under assessment. Most are for extensions of existing operations, with a few new ones and a further \$5.5 billion of investment opportunity for our regions, and thousands more jobs created or protected across the state.

The number of coal projects has decreased from 21 in 2020 to 19 projects in 2021 due to the commencement of a project, withdrawal or discontinuance of some projects, and the refusal of the Dendrobium project by the NSW Independent Planning Commission.

COVID-19 has again gripped NSW, significantly impacting on its economy just as we started to see signs of improvement in early 2021. As we look again for opportunities to rebuild the NSW economy, maintaining a certain policy environment that supports the mining sector is crucial to ensure the tried and proven economic benefits can continue to be delivered to NSW.

The NSW mining industry stands ready to strengthen the state economy in the short term and for decades to come, delivering billions in investment and supporting thousands of jobs.

Why a strong mining sector is critical for NSW

Mining is a strategically important industry for the NSW economy, which enjoys strong community support.

Mining underpins the strength of regional economies across the state and has significant flow on benefits to other industries.

The NSW mining industry:

- Is the state's largest export industry by value;
- Directly employs 37,500 people in NSW, according to the ABS⁴, and supports the jobs of many thousands more people indirectly;
- Directly spent almost \$15 billion on goods and services, wages and salaries, local government payments and community contributions in NSW during 2019/20⁵;
- Supports almost 8,000 businesses throughout NSW⁶;
- Generated over \$1.4 billion in royalty payments to the NSW Government in 2020-21, with around \$6.4 billion forecast over to 2024-25⁷;
- Provides the metals that are critical for delivering renewable energy; and
- Provides the coal needed to deliver over 80 per cent of the electricity used in NSW.

The economic imperative for NSW

A series of economic shocks, including drought, bushfires and the continued impacts of the worldwide pandemic continues to impose a significant cost on NSW, threatening the strength of the economy.

As NSW battles the most recent impacts from COVID-19, there may never be a more important time to support mining in NSW, one of the largest contributors to the State economy.

Many regional communities, although resilient, are continuing to struggle across NSW. Now more than ever, it is crucial to ensure NSW builds on its natural competitive advantages to build a stronger economy. In the regions in particular, mining and exploration activity can continue to create opportunities for communities to recover and grow.

In these economically challenging times, mining will continue to be a workhorse for the NSW economy. The industry has a demonstrated track record of delivering economic prosperity and in the years ahead can continue to provide a strong foundation for mining regions while also delivering new opportunities across NSW.

The current planning pipeline

The NSW Minerals Council has identified 32 mining projects currently in various stages of the planning and approval process, including new projects and project applications for extensions and modifications of existing operations. These range from projects at the initial EIS submission stage to approved projects still seeking related conditional approvals before mining can commence.

The potential economic benefits of these mining projects has been collated and analysed.

⁴ Australian Bureau of Statistics - Labour Force Statistics May 2021

⁵ <u>NSW Mining Industry Expenditure Impact Survey 2019/20</u>

⁶ NSW Mining Industry Expenditure Impact Survey 2019/20

⁷ NSW Budget 2021/22 <u>Budget Paper No. 1 - Budget Statement - Budget 2021-22</u> **RESOURCES FOR RECOVERY** | August 2021

While not seeking to pre-empt the outcome of the assessment process that may apply for any of these projects, we have identified the economic benefits that these projects are expected to deliver in key mining regions, and for NSW as a whole.

If these projects all obtain their necessary planning approvals and are able to proceed, they will collectively deliver significant capital investment and create or maintain thousands of jobs across NSW over the next 20 years or more.

The number of projects in the pipeline is the same as the number of projects identified in NSWMC's last similar report "*Mining for the Recovery*" released in July 2020⁸.

However, there have been some changes to the projects in the pipeline.

The number of metals projects increased to 13 in 2021, up from 11 in 2020. This is a further increase on the findings of the last report and underscores the strong interest in further investment in metals in NSW. These metals projects alone could deliver over \$7 billion in direct capital investment, as well as around 6,700 direct jobs for NSW.

Separate analysis previously undertaken by NSWMC has highlighted how metals mining almost doubled its contribution to the NSW economy over the last five years. Total direct spending of NSWMC metals sector members increased by over 50 percent in the last five years from \$1.94 billion in 2015-16 financial year to \$3.7 billion in 2019-20.

Over the same period jobs in the metals sector in NSW more than doubled from 3,700 to 7,150. The increase in spending by metals mining companies also resulted in a significant increase in the number of businesses supplying the mining sector in NSW, which grew by 44 percent from 3,980 businesses in 2015-16 to 5,719 businesses in 2019-20.⁹

This growth in metals project proposals is an opportunity to further build and diversify the NSW mining sector, and represents a continued strong response to the release of the NSW Government's Minerals Strategy in early 2019. The Strategy seeks to promote development of the many high quality metals and minerals resources across NSW and its implementation seems to be delivering initial results.

The number of coal projects has decreased to 19 projects in 2021 from 21 in 2020. This is due to the commencement of operations at Rix's Creek and the NSW Independent Planning Commission's (IPC) refusal of the Dendrobium Extension Project in February 2021, the discontinuation of the Watermark project and some extension projects that have been withdrawn.

The refusal of the Dendrobium project, which represented around \$1 billion of investment as part of an extension to an existing operating mine, directly threatens thousands of jobs both in the mine and the broader Illawarra steelmaking region. Now more than ever we need to make sure we are protecting existing jobs and securing investment. NSW simply doesn't have the luxury of throwing away real jobs like these that exist today, particularly in the regions.

Nonetheless, coal projects currently in the pipeline continue to represent a significant economic opportunity for NSW both now and into the future, potentially contributing over \$5.5 billion in capital investment and almost 11,000 jobs over the next 20 years or more.

⁸ NSWMC Report - Mining for the Recovery <u>32 mining projects in planning pipeline - NSW Mining</u>

⁹ Metals mining's contribution to NSW hits five year high - NSW Mining

The potential benefits for the NSW Economy

The potential economic benefits for the state of NSW include:

- Almost \$13 billion in capital investment in NSW, driving economic activity across the State, including in regional areas
- Creating or maintaining over 17,500 direct construction and operation jobs along with tens of thousands more jobs in businesses that support the mines
- From 23 of the 32 projects, over \$4 billion in royalties¹⁰ for NSW and hundreds of millions more through other taxes and local community contributions

The potential regional economic benefits

The potential regional economic benefits to be delivered include:

- In the Hunter¹¹, over \$3.6 billion in capital investment and around 7,500 jobs
- In the Illawarra, almost \$1 billion in capital investment and around 1,700 jobs
- In the Central West, over \$4 billion in capital investment and over 2,700 jobs
- In the Far West, over \$2.7 billion in capital investment and almost 3,400 jobs
- In the Lithgow/Mudgee Region, over \$150 million in capital investment and over 600 jobs
- In the Gunnedah region, over \$1 billion in capital investment and over 1,400 jobs

| Region | Capital Investment (\$M) | Royalties (\$M)* | Jobs |
|----------------|--------------------------------|---------------------|--------|
| CENTRAL WEST | 4,036 | 547 | 2,736 |
| FAR WEST | 2,782 | 435 | 3,382 |
| LITHGOW/MUDGEE | 156 | 37 | 622 |
| ILLAWARRA | 953 | 335 | 1,726 |
| LOWER HUNTER | 1,118 | 207 | 1,510 |
| UPPER HUNTER | 2,484 | 2,023 | 6,059 |
| GUNNEDAH | 1,078 | 520 | 1,470 |
| TOTAL | 12,607 | 4,104 | 17,505 |

*This is a conservative estimate as royalties have only been identified for 22 of the 32 projects. Royalties are expressed in Net Present Value (NPV).

¹⁰ Royalties are expressed in Net Present Value (NPV)

¹¹ Includes Lower Hunter and Upper Hunter

RESOURCES FOR RECOVERY | August 2021

Conclusion - seizing opportunities for NSW

COVID-19 continues to grip the NSW economy. The economic impacts from the pandemic will place the NSW economy under significant pressure for some time to come.

Under these challenging circumstances, it's imperative that industries like mining, with a proven track record of providing thousands of jobs and billions in investment, are encouraged under a reasonable and certain regulatory environment.

The NSW Government has made good progress in creating a policy framework to secure a positive future for mining. There has been a strong industry response to the NSW Government's 2019 Minerals Strategy, demonstrated by the number of potential new metals mining projects highlighted in this report. Further momentum is also possible through the NSW Government's recent announcement of development of a NSW Critical Minerals Strategy.

The NSW Government's 2020 Coal Strategy highlighted the important role coal mining will play in re-building the NSW economy in the short term and over the coming decades. The report includes forecasts that show the current levels of global coal demand remaining relatively stable for the next three decades to 2050, with falls in some markets to be partially offset by increases in others.

This is consistent with most conventional views on the global coal demand trajectory, although as the Strategy acknowledges, there are a range of possible scenarios, and the impact of COVID-19 on medium term energy demand trends remains unclear.

The 32 projects highlighted in this report demonstrate how the NSW mining sector can continue to strengthen the NSW economy for decades to come, delivering billions in investment and supporting thousands of jobs.

While more progress is always needed to continue to attract investment in a globally competitive environment, NSW stands well placed to maximise opportunities for the future, provided this policy momentum can continue.

| | Capital | | |
|--|------------|-----------|--------|
| NSW Region | Investment | Royalties | Jobs |
| | (\$M) | (\$M) | |
| Dubbo Zirconia Project | 1,300 | 102 | 650 |
| CleanTeq Sunrise | 1,770 | 235 | 1,300 |
| Cowal Gold Operations | 319 | 130 | 160 |
| McPhillamys Gold Project | 500 | 80 | 136 |
| Tomingley Gold Extension Project | 87 | | 250 |
| Kempfield Silver Mine | 60 | | 240 |
| CENTRAL WEST TOTAL | 4,036 | 547 | 2,736 |
| Broken Hill Cobalt Project | 650 | 200 | 710 |
| New Cobar Complex Underground Project | 67 | 60 | 501 |
| Federation Project (related to Hera Mine) | | 63 | 350 |
| Owendale Scandium Project | 125 | 112 | 121 |
| Hawsons Iron Ore Project | 1,940 | | 1,700 |
| FAR WEST TOTAL | 2,782 | 435 | 3,382 |
| Pine Dale Extension | 6 | | 72 |
| Angus Place West | | | 200 |
| Bowden's Silver Project | 150 | 37 | 350 |
| LITHGOW/MUDGEE TOTAL | 156 | 37 | 622 |
| Hume Coal Project | 500 | 114 | 680 |
| Tahmoor South Coal Project | 257 | 149 | 555 |
| Russell Vale Underground Expansion Project | 85 | 23 | 300 |
| Marulan South Limestone Mine Operations | 111 | 49 | 191 |
| ILLAWARRA TOTAL | 953 | 335 | 1,726 |
| Wallarah 2 Coal Project | 805 | 207 | 750 |
| Chain Valley Consolidation Project | | | 390 |
| Newstan Extension Project | 313 | | 370 |
| LOWER HUNTER TOTAL | 1,118 | 207 | 1,510 |
| United Wambo Open Cut Coal Mine | 207 | 369 | 570 |
| Mangoola Coal Continued Operations Project | 40 | 121 | 540 |
| Maxwell Project | 509 | 342 | 350 |
| Glendell Continued Operations Project | 515 | 296 | 687 |
| HVO Nth OC Continuation Project | | | 2,100 |
| HVO Sth OC Continuation Project | | | |
| Mt Pleasant Optimisation Project | 950 | 684 | 600 |
| Ashton South East Open Cut | 168 | 107 | 212 |
| Bulga (Mod 3 & Mod 7) | 95 | 104 | 1,000 |
| UPPER HUNTER TOTAL | 2,484 | 2,023 | 6,059 |
| Narrabri Underground Stage 3 Extension Project | 404 | 259 | 520 |
| Vickery Extension Project | 674 | 261 | 950 |
| GUNNEDAH TOTAL | 1,078 | 520 | 1,470 |
| TOTAL | 12,607 | 4,104 | 17,505 |

APPENDIX A: 2021 PROJECT LIST

Notes:

- Royalties are expressed in Net Present Value (NPV)
 Jobs include direct construction and direct operational jobs
 Information obtained from publicly available sources, as well as inputs from individual companies

APPENDIX B: PROJECTS BY COMMODITY TYPE

Metals Projects

| Project | Capital Investment (\$M) | Royalties (\$M) | Jobs |
|---|--------------------------------|--------------------|-------|
| Dubbo Zirconia Project | 1,300 | 102 | 650 |
| CleanTeq Sunrise | 1,770 | 235 | 1,300 |
| Cowal Gold Operations | 319 | 130 | 160 |
| McPhillamys Gold Project | 500 | 80 | 136 |
| Tomingley Gold Extension Project | 87 | | 250 |
| Kempfield Silver Mine | 60 | | 240 |
| Broken Hill Cobalt Project | 650 | 200 | 710 |
| New Cobar Complex Underground Project | 67 | 60 | 501 |
| Federation Project (related to Hera Mine) | | 63 | 350 |
| Owendale Scandium Project | 125 | 112 | 121 |
| Hawsons Iron Ore Project | 1,940 | | 1,700 |
| Bowden's Silver Project | 150 | 37 | 350 |
| Marulan South Limestone Mine Operations | 111 | 49 | 191 |
| TOTAL | 7,079 | 1,068 | 6,659 |

Coal Projects

| Project | Capital Investment (\$M) | Royalties (\$M) | Jobs |
|--|--------------------------------|--------------------|--------|
| Pine Dale Extension | 6 | | 72 |
| Angus Place West | | | 200 |
| Hume Coal Project | 500 | 114 | 680 |
| Tahmoor South Coal Project | 257 | 149 | 555 |
| Russell Vale Underground Expansion Project | 85 | 23 | 300 |
| Wallarah 2 Coal Project | 805 | 207 | 750 |
| Chain Valley Consolidation Project | | | 390 |
| Newstan Extension Project | 313 | | 370 |
| United Wambo Open Cut Coal Mine | 207 | 369 | 570 |
| Mangoola Coal Continued Operations Project | 40 | 121 | 540 |
| Maxwell Project | 509 | 342 | 350 |
| Glendell Continued Operations Project | 515 | 296 | 687 |
| HVO Nth OC Continuation Project | | | 2,100 |
| HVO Sth OC Continuation Project | | | |
| Mt Pleasant Optimisation Project | 950 | 684 | 600 |
| Ashton South East Open Cut | 168 | 107 | 212 |
| Bulga (Mod 3 & Mod 7) | 95 | 104 | 1,000 |
| Narrabri Underground Stage 3 Extension Project | 404 | 259 | 520 |
| Vickery Extension Project | 674 | 261 | 950 |
| TOTAL | 5,528 | 3,036 | 10,846 |

APPENDIX C: EXTENSIONS/NEW PROJECTS BY COMMODITY TYPE

| Project | Capital Investment (\$M) | Royalties (\$M) | Jobs |
|---|--------------------------------|--------------------|-------|
| New | | | |
| Dubbo Zirconia Project | 1,300 | 102 | 650 |
| CleanTeq Sunrise | 1,770 | 235 | 1,300 |
| Hawsons Iron Ore Project | 1,940 | | 1,700 |
| Owendale Scandium Project | 125 | 112 | 121 |
| Bowden's Silver Project | 150 | 37 | 350 |
| McPhillamys Gold Project | 500 | 80 | 136 |
| Kempfield Silver Mine | 60 | | 240 |
| Broken Hill Cobalt Project | 650 | 200 | 710 |
| New Projects Total | 6,495 | 766 | 5,207 |
| Continuation | | | |
| Cowal Gold Operations | 319 | 130 | 160 |
| New Cobar Complex Underground Project | 67 | 60 | 501 |
| Federation Project (related to Hera Mine) | | 63 | 350 |
| Marulan South Limestone Mine Operations | 111 | 49 | 191 |
| Tomingley Gold Extension Project | 87 | | 250 |
| Continuation Projects Total | 584 | 302 | 1,452 |
| TOTAL | 7,079 | 1,068 | 6,659 |

Metals: New Projects vs Continuation of Existing Projects

Coal: New Projects vs Continuation of Existing Projects

| Project | Capital Investment (\$M) | Royalties (\$M) | Jobs |
|--|--------------------------------|--------------------|--------|
| New | | | |
| Hume Coal Project | 500 | 114 | 680 |
| Maxwell Project | 509 | 342 | 350 |
| Wallarah 2 Coal Project | 805 | 207 | 750 |
| Vickery Extension Project | 674 | 261 | 950 |
| New Projects Total | 2,488 | 924 | 2,730 |
| Continuation | | | |
| Pine Dale Extension | 6 | | 72 |
| Angus Place West | | | 200 |
| Tahmoor South Coal Project | 257 | 149 | 555 |
| Russell Vale Underground Expansion Project | 85 | 23 | 300 |
| Chain Valley Consolidation Project | | | 390 |
| Newstan Extension Project | 313 | | 370 |
| United Wambo Open Cut Coal Mine | 207 | 369 | 570 |
| Mangoola Coal Continued Operations Project | 40 | 121 | 540 |
| Glendell Continued Operations Project | 515 | 296 | 687 |
| HVO Nth OC Continuation Project | | | 2,100 |
| HVO Sth OC Continuation Project | | | |
| Mt Pleasant Optimisation Project | 950 | 684 | 600 |
| Ashton South East Open Cut | 168 | 107 | 212 |
| Bulga (Mod 3 & Mod 7) | 95 | 104 | 1,000 |
| Narrabri Underground Stage 3 Extension Project | 404 | 259 | 520 |
| Continuation Projects Total | 3,040 | 2,112 | 8,116 |
| TOTAL | 5,528 | 3,036 | 10,846 |

APPENDIX D: COAL PROJECTS BY COAL TYPE

Coal Projects: Thermal, Coking and Coking/Thermal

| Project | Capital Investment (\$M) | Royalties (\$M) | Jobs |
|--|--------------------------------|--------------------|--------|
| Thermal | | | |
| Angus Place West | | | 200 |
| Pine Dale Extension | 6 | | 72 |
| Wallarah 2 Coal Project | 805 | 207 | 750 |
| Mangoola Coal Continued Operations Project | 40 | 121 | 540 |
| Mt Pleasant Optimisation Project | 950 | 684 | 600 |
| Chain Valley Consolidation Project | | | 390 |
| Total | 1,801 | 1,012 | 2,552 |
| Metallurgical | | | |
| Tahmoor South Coal Project | 257 | 149 | 555 |
| Russell Vale Underground Expansion Project | 85 | 23 | 300 |
| Total | 342 | 172 | 855 |
| Thermal/Metallurgical | | | |
| HVO Nth OC Continuation Project | | | 2,100 |
| HVO Sth OC Continuation Project | | | |
| Hume Coal Project | 500 | 114 | 680 |
| Newstan Extension Project | 313 | | 370 |
| United Wambo Open Cut Coal Mine | 207 | 369 | 570 |
| Maxwell Project | 509 | 342 | 350 |
| Glendell Continued Operations Project | 515 | 296 | 687 |
| Ashton South East Open Cut | 168 | 107 | 212 |
| Bulga (Mod 3 & Mod 7) | 95 | 104 | 1,000 |
| Narrabri Underground Stage 3 Extension Project | 404 | 259 | 520 |
| Vickery Extension Project | 674 | 261 | 950 |
| Total | 3,385 | 1,852 | 7,439 |
| TOTAL | 5,528 | 3,036 | 10,846 |