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1 INTRODUCTION

Thank you for the opportunity to outline our policy proposals to the Queensland Government, in response to the Queensland Resources Industry Development Plan.

2 ABOUT AMEC

The Association of Mining and Exploration Companies (AMEC) is the national industry body representing almost 400 mining and mineral exploration companies across Australia. Our members are explorers, emerging miners, producers, and a wide range of businesses working in and for the industry. The AMEC Queensland membership base is dominated by companies looking for New Economy Minerals. Our members and stakeholders in Queensland explore, develop and produce minerals including Antimony, Bauxite, Coal, Cobalt, Copper, Gold, Graphite, Lead, Lithium, Mineral Sands, Molybdenum, Nickel, Rare Earths, Silver, Tungsten, Vanadium, Zinc.

3 OBJECTIVES

Resources is one of Queensland’s traditional industries, but it is also the primary industry supporting Queensland’s economy and post COVID-19 recovery as well as emerging resource-related industries like battery production, mineral beneficiation, METS, gas including hydrogen and renewables.

Queensland’s strong mining and mineral exploration sector is supporting the future growth and development of the State’s economy. To improve Queensland’s international competitiveness, create jobs and attract mining and mineral exploration investment, the Government should have public policies which aim to:

- Increase economic growth through mineral exploration and mining activity
- Reduce the cost of doing business throughout the State
- Ensure Queensland is a partner of choice for sourcing and investing in sustainably sourced minerals for the future

In order to achieve these objectives and create more jobs throughout the economy, AMEC has prepared some suggested recommendations set out in this document with a focus on 3 priority areas:

1. Infrastructure Investment
2. Support Industry Initiatives
3. Policy and regulatory stability
4 EXECUTIVE SUMMARY

Below is a summary of the recommendations proposed in the body of the submission.

Infrastructure Investment

- Funding and assistance for common user multi commodity demonstration plant(s)
- Review the mineral projects in the development ‘pipeline’ in key regions (e.g. Julia Creek, North West Minerals Province, Wide Bay Burnett Minerals Region and the Hodgkinson Province) and work with proponents on what capital investment would positively impact their feasibility studies
- Funding and assistance for novel metallurgical studies to develop mineral processing techniques that benefit specific geological regions
- Review access conditions for export infrastructure to ensure new projects can be offered access to infrastructure on reasonable terms
- Continue work with industry, pipeline projects and local stakeholders to prioritise infrastructure investment
- Use independent modelling to better utilise existing infrastructure and reduce/delay the need for new capital investment
- Continue to support electricity infrastructure to achieve affordable energy security in regional areas
- Support new energy projects that are geographically close to where the demand is, or is projected
- Work with mining and exploration projects to help new entrants achieve carbon neutrality

Support Industry Initiatives

- Deliver an increase in the funding to at least $10 million per annum for the Collaborative Exploration Initiative (CEI). Ensure funding is available annually and consistently to enable planning
- CEI should be open to all mineral commodities in all locations in Queensland
- Implement a co-funded or grant based Collaborative Rehabilitation Initiative (CRI)
- Utilise the Progressively Certified Rehabilitation areas as baselines and template for successful rehabilitation and develop a standardisation for successful rehabilitation which makes navigation of rehabilitation techniques and what works well more easily accessible for emerging entities.
- Establish a Premier’s Resources Roundtable to bring together key Ministers and Directors General with industry to improve consistency and remove duplication
- Increase programs supporting science, technology, engineering and mathematics (STEM) in all levels of education
- Promote the positive contribution of the resource sector to the wider community through economic impact reporting of the COVID Recovery initiatives

Policy and regulatory stability

- Add to the Minister for Environment’s delivery priorities to help supply the minerals needed to achieve the Queensland Government Renewable Energy Target
• Help create a value chain for the battery industry through initiatives like co-funding manufacturing for downstream battery components
• Use good policy to continue and expand on Queensland’s ‘good governance’ reputation
• Work with the Federal Government to develop ‘traceability’ or ‘tracking’ standards so customers know where the minerals for their products are sourced
• Implement a clear and consistent land access framework
• Consider an option to have an independent arbitration (when land access agreements break down), rather than the next available option been litigation proceedings, it reduces costs to companies and individuals.
• Work with stakeholders in developing minerals regions to assist with sustainable development and good ESG practices
• Review the mineral projects in the development ‘pipeline’ in key regions (e.g. Julia Creek, North West Minerals Province, Wide Bay Burnett Minerals Region and the Hodgkinson Province) and work with proponents on what capital investment would positively impact their feasibility studies
• Update digitally published vegetation maps more regularly
• Make it simpler to report potentially incorrectly mapped areas to the appropriate agency for follow up
• Remove the cost and time burden of incorrect mapping from the explorer by enabling Herbarium staff to make field visits when errors are reported
• Remove duplicating data submissions by consolidation and coordination of data across agencies
• Develop and annual compliance report based on the level of interactions, reporting and inspections carried out annual by the Departments to demonstrate industries commitment to and ability to uphold licences that are issued.
• Maintain certainty around royalty rates for all mineral commodities
• Ensure Safety is included in the Department of Resources regular community information sessions
• Work with industry to develop safety templates that make it easier for smaller companies to implement changes and ensure compliance
5 STATE OF THE INDUSTRY

5.1 Mining and Exploration's contribution to the Queensland Economy

Governments enjoy significant benefits from all the stages of the resources industry. This has been made clear, particularly during COVID-19 where exploration and mining could continue to operate safely, effectively, and with low and manageable risks and largely away from major population areas.

The strength of the Queensland economy is in a large part due to the success in keeping COVID-19 out of the mineral exploration and mining sector. The achievement of close to zero community transmission has set us up for success. Despite the global recession caused by COVID-19 and geopolitical stresses resulting in lowered demand for Queensland’s key exports of coal and LNG, Mining continues to be the leading industry contributor to gross value added in Queensland.

In the 4 quarters to May 2021, the average people employed in Queensland Mining sector totalled 76,001, with a year on year growth of 17%. The Exploration part of the industry is thriving within this data, making up 25.8% of the jobs. The year-on-year change in four-quarter average for Exploration is an amazing +70.1%. The vast majority of the jobs growth is in regional areas.

Looking at the state of the Queensland mining industry through royalties, the situation is currently volatile (Figure 1). Historic exploration expenditure and fluctuating commodity prices have played a large role in the current royalty revenue. Royalties from Minerals (or “Other”) have increased by 39.7% up to $548m for the 2020FY.

![Figure 1 Exploration Spend (excluding petroleum), Actual Royalties and Projected Royalties (excluding land rents)](image)

However, to regain an upward or even a static royalty trajectory in light of COVID-19 and to find the minerals needed for the world's renewables industry, we need to help explorers find new deposits and help existing producers expand and maximise the existing deposits and new discoveries.

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1 Mining's contribution to gross value added in Queensland
2 Mining employment in Queensland
3 Queensland royalties and land rents
4 Mineral Exploration Expenditure Australian Bureau of Statistics
5 Queensland Royalty Statistics - Summary of royalty revenue $M
6 Queensland Budget 2020-21
Mineral exploration and mining companies with projects in Queensland are faced with an expanding list of challenges, including:

- Additional and more exacting regulatory burden
- Increased hurdles for land access
- Social license to operate risks
- Difficulties raising equity capital in a globally competitive market
- International trade issues
- Lower discovery rates and grade as well as higher strip ratios
- Increasing production and operating costs
- Deeper deposits requiring increased costs for discovery and extraction
- Access to finance and insurance

The impact of these challenges is considered in the latest Ernst & Young research paper ‘Top 10 business risks and opportunities – 2021’. “The disruption of 2020 has reshuffled rankings, but license to operate (LTO) remains the number one issue for miners, with 63% of our survey respondents flagging it as a top three risk.”

Figure 2 Top 10 business risks facing mining and metals

In 2020, Queensland mining and mineral exploration companies invested over $400 million (not including petroleum) to discover the mines of the future. This is down from the 2011/2012 heyday where exploration in Minerals and Coal totaled $967.5 million with almost 75% of the expenditure on

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7 Top 10 business risks and opportunities for mining and metals in 2021
coal exploration (Figure 3). We are now experiencing the flow on benefits from this expenditure in the form of royalties and employment.

**Figure 3 Queensland Mineral Exploration, (Other than for petroleum) - Expenditure by mineral sought**

The COVID-19 Relief package for Explorers that the Queensland Government rolled out in 2020 was easily the best relief package for any jurisdiction throughout Australia. The increase in jobs and spend in this part of the industry can be partially attributed to this support (and the soaring gold price also helped increase exploration and expansion projects in this commodity).

The State Government can help by removing the barriers to exploration and expansion that are within the control of the State. There is also an opportunity to positively influence aspects that are not within its control. Several ways to do this are outlined in the recommendations in this paper.

5.2 Where are the bottlenecks and costs in the Lifecycle of a Mineral Discovery?

The main areas where projects struggle, are at the “New-Project & early exploration, “Feasibility” and “Permitting and Project Financing” stages. State and Federal Governments are seeing the benefits of the exploration industry to the economy considering the recent announcements responding to COVID-19 economic recovery. Most of the announcements have been to assist companies at the Pre-discovery stage. But there are levers within Governments control that can improve the success rate for projects struggling through the “Feasibility” and “Permitting and Project Financing” stages.

The chart in **Figure 4**, adapted from Austex’s “Typical share price movement as project status changes” represents the life stages of a junior mining or exploration company through different development phases. The Y-axis represents the company value throughout the various stages and the X-axis timeline is dependent on factors like the deposit type and the jurisdiction the project is in, with the jurisdiction often impacting the approval timeframes for projects. Ideally, companies want to spend the least amount of time in the low value sections of the chart.

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8 Mineral and Petroleum Exploration, Australia
The significance of this diagram from a Government Policy perspective is to easily see where policy, grants and strategic infrastructure can assist resource projects when ‘traditional’ funding and valuations make project development difficult.

**Figure 4 Typical share price movement as project status changes**

![Diagram showing typical share price movement](image)

adapted from chart produced by Austex Resource Opportunities - [www.austexresources.com](http://www.austexresources.com)

5.3 What about other energy sources and export opportunities?

The Queensland Government’s long-term vision for Hydrogen and Biofuels Exports is admirable, but it is going to be difficult to get equivalent royalties or tax revenue from these fuels. There also aren’t as many ‘flow on’ and upside benefits from renewables and hydrogen production compared to the mining industry. However, these industries can easily coexist and also support and supply to the mining industry. There are also more and more resource companies investing in these types of projects as part of their Environment and Social Governance programs. There are whole conferences dedicated to ‘Renewables in Mining’ and it is great to see the State Government supporting this through conferences such as Energy, Mines and Money.

Renewables including Hydrogen have similar regulatory challenges to the mining industry. For example, some of the most ideal locations for Renewable Hydrogen production in Western Queensland will potentially be sterilised with the proposed Lake Eyre Basin/ Pristine Rivers amendments. The ‘greener’ areas in **Figure 5** indicate the hydrogen production areas that could be brought online in the near term (next decade). These areas are in the Strategic Environmental Areas proposed in the Lake Eyre Basin consultation.
Figure 5 This map represents sites for CCS hydrogen production that can potentially proceed in the nearer term, with CO2 storage sites that could be brought online in the next decade and including current infrastructure.9

9 Geoscience Australia - Australia’s hydrogen production potential
6 Infrastructure Investment

6.1 Mineral Processing and value chain

Once a resource is found, the next most difficult stages are “Feasibility” and “Permitting and Project Financing”. It is in these stages that strategic infrastructure can help projects increase their value and source investment more quickly and much easier.

“A mine without a processing facility is just a quarry” – Rob Murdoch, AUSTEX Mining

For more than a decade, commentators have been talking about “Australia being the World’s Quarry”. Our ore goes offshore where it can be processed more cheaply due to costs associated with labor, environmental compliance and electricity. Queensland could turn this around and be the jurisdiction of choice to explore, mine and process minerals ethically and sustainably. The benefits to Queensland to value add locally include:

- Increased export revenue
- Higher fiscal revenue
- Increased employment in regional areas
- Industrial diversification
- reduced the carbon footprint, as less material would be unnecessarily transported to offshore processing facilities

The region from the North West Minerals Province (NWMP) to Townsville is potentially a test case for ‘like minerals’ processing. Studies are underway in Mount Isa and Cloncurry to assess the benefits to producing mines, emerging mines and explorers. The existing processing facilities are ‘toll processing’ ore if the location and the transport costs are economical. This demonstrates that the model can work, if the capital is in place.

A common user Minerals Processing Demonstration Plant lowers a barrier of entry for companies to decide to invest domestically. Developing a demonstration processing plant is often too expensive and beyond the skill set and budget of most developing miners. However, a common user facility will make it cheaper for a developing miner to do the necessary due diligence to invest further down stream.

The key benefits of a Mineral Processing Demonstration plant include:

- Lower the cost of entry to the market
- A genuine common user infrastructure to unlock Australia’s critical minerals value chain
- Multi commodity
- Research and Development generator
- Will make it easier for companies to undertake capital intensive test work to prove to future customers that an ore can be processed consistently at the desired grade to produce a product they want to purchase
- The improved certainty of offtake, along with decreased technical risk, facilitates debt finance (and improves terms) to support the project development.

For new areas and mineral types, a common user processing facility would likely struggle to get fully funded without Government assistance, but there is an opportunity invest in a potential ‘game changer’ for the new economy minerals. For many deposits, complex laboratory testing is required to ensure that an effective processing approach is available to extract the target ore. Currently individual companies spend millions of dollars and significant time on this. If analysis was funded by the Government then more projects would survive the “Feasibility Stage” of the development lifecycle and
accelerate the development process. A more detailed Briefing Note has been provided to the Department of Resources regarding the opportunity here.

Creating a battery value chain locally is a key step to attracting a sustainable battery production industry in Australia. It would also make Queensland a realistic alternative to supply raw and processed materials and encourage the manufacturing of cell components, the cells themselves, the battery packs and ultimately recycling here as well.

Recommendation:

- **Funding and assistance for common user multi commodity demonstration plant(s)**
- **Review the mineral projects in the development ‘pipeline’ in key regions (e.g. Julia Creek, North West Minerals Province, Wide Bay Burnett Minerals Region and the Hodgkinson Province) and work with proponents on what capital investment would positively impact their feasibility studies**
- **Funding and assistance for novel metallurgical studies to develop mineral processing techniques that benefit specific geological regions**

### 6.2 Road and Rail Transport

There is a focus on finding resources, but a substantial hurdle for any potential project to overcome is the significant distances from the coast and accessing high efficiency and low-cost logistics infrastructure. This is often prohibitive for small, and emerging projects on a ‘stand-alone’ basis. The Bowen Basin Coal Infrastructure was developed with State Government assistance, the emerging minerals regions need this type of vision and planning also.

There is significant effort underway to encourage development in the North West Minerals Province (NWMP), especially to unlock possibility for New Economy Minerals. But there are opportunities of new and improvements to existing infrastructure state-wide:

- Mount Isa to Townsville ‘corridor’ and hundreds of kilometres either side is rich in mineral resources looking for an efficient path to port
- Emerging mineral producers find accessing rail to be costly and difficult, many studies have found that trucking product to port cheaper, but often not the best outcome for the community
- The Wide Bay Burnett area has a variety of minerals deposits and agriculture projects that could access Bundaberg Port with the right transport solutions e.g. Bridge and road upgrades
- A rail solution to unlock the resources in the Surat Basin (and the potential coking coal resources underlying it in the Bowen Basin)
- Access to existing infrastructure is becoming more and more difficult with coal producers monopolising the Bowen Basin Rail system, with reducing opportunity for smaller producers to access the system

Recommendation:

- **Review access conditions for export infrastructure to ensure new projects can be offered access to infrastructure on reasonable terms**
- **Continue work with industry, pipeline projects and local stakeholders to prioritise infrastructure investment**
- **Use independent modelling to better utilise existing infrastructure and reduce/delay the need for new capital investment**
6.3 Electricity

Access to electricity at a lower cost would significantly reduce the costs of hard rock mining. This would also allow for other growth industries such as advanced manufacturing and mineral processing. AMEC has been monitoring the Queensland Competition Authority review of electricity prices and welcome the resulting reduction in prices, as the process of grinding and crushing ore is on average the highest energy step in mining.\(^\text{10}\)

Energy costs for the existing mineral producers in the regions are amongst the highest in Queensland. Thanks to the formation of CleanCo and the progression of Renewables 400, we have seen some significant investment decisions in the renewable energy sector in Queensland. The location of this type of infrastructure will be a key success factor as the new energy projects in the regions will have less transmission loss as the potential end users will be relatively close to the new projects. CleanCo has great potential to assist mining projects to achieve lower costs and carbon neutrality through Power Purchase Agreements or other arrangements such as a guarantee. Supporting emerging and new projects will be more cost effective and easier than retrofitting projects.

The remote area new energy infrastructure that CleanCo is looking at is the type of vision that is going to help projects in the “Feasibility” stage of the Mining Lifecycle chart and help mining projects transition to a lower emission industry.

Recommendation:

- Continue to support electricity infrastructure to achieve affordable energy security in regional areas
- Support new energy projects that are geographically close to where the demand is, or is projected
- Work with mining and exploration projects to help new entrants achieve carbon neutrality

7 Support Industry Initiatives

7.1 Increase funding to Collaborative Exploration Initiative (CEI) and pre-competitive data

AMEC welcomes the recent focus of Government on these programs for explorers, but it is extremely important they continue to be funded. Structuring the CEI as a grant, rather than being co funded is also a game changer for explorers and better than funding structures offered by other states.

CEI type programs are critically needed to find bigger and more sustainable deposits of minerals needed to supply the demand from Queensland export partners and to provide the minerals needed for the rapidly growing renewable energy industry. New, bigger and different ways of mining is needed for the Queensland economy in order to:

- Recover minerals more efficiently, cost effectively and make the most of Queensland’s natural resources
- Improve safety in mining

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\(^{10}\) Coalition for Eco-Efficient Comminution
Another benefit of injecting money into exploration phase is that a small amount at this riskier end of the process can have significant multiplier benefits for a successful project. From an investor perspective (any investor, be it private or government through a grant), a comparatively small investment at the early stages can make all the difference.

**Figure 6 Exploration Incentive Scheme - benefit summary**

Most mining jurisdictions globally have exploration initiatives. The reason for this, is that it works. The more invested at the exploration end of the cycle, the bigger the benefits at the production end. A study on the success of such exploration incentives was undertaken in WA and released in 2015. The WA Government commissioned ACIL Allen Consulting to do an economic impact study on the WA Exploration Incentive Scheme (EIS). The study “expected combined Western Australian private sector and government sector benefit, in net present value terms, is $23.7M for every $1M invested in the EIS. This finding is consistent with the results reported from other studies.”

Queensland’s CEI is still critically needed and should to be significantly increased and extended to have an enduring impact to the whole Queensland Economy and the wider resources and renewables sector. The importance of co-funded drilling schemes cannot be understated as it provides part funding for exploration in areas that would not otherwise be able to attract private capital, even as capital raising becomes easier for existing mines. This is simply because these exploration projects are genuine greenfields exploration, much higher risk, and consequently require investors to assume a

11 [Exploration Incentive Scheme - Economic Impact Study](#)
greater risk as well. Greenfield exploration in Queensland was at a low point in 2016 and is yet to recover (Figure 7).

**Figure 7 Queensland Mineral Exploration Expenditure**

There is no doubt that CEIs are a key initiative that creates jobs, revenue for local communities and future royalty streams. AMEC has therefore been a major promoter of CEIs in Queensland (and in other competing Australian jurisdictions). However, it needs to be delivered consistently with at least $10 million being available annually. The current situation where short notice is given for projects does not allow enough time for explorers to plan effective exploration programs and arrange land access.

Investing in precompetitive data acquisition assist explorers and prospective explorers substantially. More funding for the release of exploration land programs to enable the Queensland Geological Survey to do meaningful work on land releases to enable the release of prospective areas and not just the ‘easiest’ areas would also be welcomed.

Providing maps and other promotional materials would also help companies and the state increase investment attractiveness substantially. Not everyone is going to learn how to use GeoResGlobe to find what they need. Stakeholders from other states and countries need web pages or PDF brochures to assess the opportunity before digging into the detail available in GeoResGlobe.

**Recommendation:**
- Deliver an increase in the funding to at least $10 million per annum for the Collaborative Exploration Initiative (CEI). Ensure funding is available annually and consistently to enable planning
- CEI should be open to all mineral commodities in all locations in Queensland

### 7.2 Innovative rehabilitation techniques and processes

A significant part of the mining industry is the Mining Equipment, Technology and Services (METS) sector, with many companies focussed on improving environmental outcomes for active and historic

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12 [Mineral Exploration, (Other than for petroleum)] - Expenditure by type of deposit
mining projects and sometimes using new technologies. Often companies are reluctant to trial new technologies for reasons such as, existing approvals being in place, neutral cost benefit (even if there is a better environmental outcome), innovation not budgeted into operations and difficulty getting approvals for innovative or unproven techniques.

The Department of Resources has had success with a program to encourage innovative mineral exploration techniques through the CEI. The industry and the administering agency thrive with this type of model. Programs like this improves communication between industry and government and flows onto improved outcomes for everyone. The agency gets to directly influence the types of technologies trialled and companies get to pilot techniques that may not have been approved previously.

The successful CEI model could be expanded to innovation and collaboration between industry and the Environmental regulator. A Collaborative Rehabilitation Initiative (CRI) would be welcomed by industry as it would reduce the time and cost associated with trialling new rehabilitation techniques and improve knowledge and outcomes for rehabilitation projects.

Traditional rehabilitation techniques in QLD are based on a handbook that was devised for agriculture and is some 30 years old. Most techniques and technology for successful rehabilitation outcomes have been engineered and developed by the resource sector. As such the resource sector has a deep history of data and results to support future rehabilitation and open up opportunities based on successful examples and template of how rehabilitation can be retro fitted across new and emerging resource entities. There is currently 3,444.45 ha across 14 different sites and approved over a period of 2012 to 2021. That is almost a decade of successful rehabilitation in Queensland not to mention a decade or more of development and investment in sites to yield successful rehabilitation.

Recommendation:
• Implement a co-funded or grant based Collaborative Rehabilitation Initiative (CRI)
• Utilise the Progressively Certified Rehabilitation areas as baselines and template for successful rehabilitation and develop a standardisation for successful rehabilitation which makes navigation of rehabilitation techniques and what works well more easily accessible for emerging entities.

7.3 Stakeholder Engagement

The State Government agencies have clearly defined portfolios. In most cases it is very clear to industry which Departments manage different aspects of Government. However, sometimes this silo view is prohibitive to efficient business and project development. Engaging more widely with relevant stakeholders and industry to discuss how Government can continue protect and promote resource projects, jobs and resource innovation would help Departments see solutions to problems of which they were unaware.

Recommendation:
• Establish a Premier’s Resources Roundtable to bring together key Ministers and Directors General with industry to improve consistency and remove duplication

7.4 Education and diversity programs

Exploration and mining are not seen as preferred industries by many High School Graduates, and this is reflected in the very low university enrolment numbers in the various mining-related disciplines. This
is leading to severe skill shortages and a lack of locally trained minerals professionals which in turn stifles development. Additionally, the mining industry has an ageing workforce throughout the business, from the front line to the head office.

A Government-Industry collaborative approach is needed to address this issue by promoting the minerals industry, particularly to primary and secondary level students. Some companies and sectors are doing some work towards this objective, but a unified approach is needed to spearhead a campaign to ensure that Queensland does not lose a generation of skilled experts to realise the future minerals industry.

Recommendation:

- Increase programs supporting science, technology, engineering and mathematics (STEM) in all levels of education
- Promote the positive contribution of the resource sector to the wider community through economic impact reporting of the COVID Recovery initiatives

8 Policy and regulatory stability

The Queensland Productivity Commission released a research paper on Improving regulation in March 2021. One of the key points of the paper stated “With the quality of regulation having a direct bearing on productivity and economic growth, governments have identified regulatory reform as a key element of the economic policy response to the impact of the COVID-19 pandemic. As discussed in the Commission’s paper, Building Economic Resilience in Queensland, countries with more efficient regulatory regimes are more likely to experience smaller economic contractions and faster recoveries.”

Without good policy and regulatory stability throughout the lifecycle of project development, projects are subjected to unanticipated delays and can easily lose investment attractiveness. Developers generally understand that certain stages of project development take longer than others, as these delays can be scheduled into the project. However, when the goal posts are moved and uncertainty is introduced into a jurisdiction, this has a ripple effect, not just to the project impacted or even the commodity, but also throughout the sector.

Policy Perception and Investment Attractiveness are the key measures in the Annual Fraser Institute Survey. When you are fortunate enough to have a resource rich jurisdiction, most of the ‘investment attractiveness’ questions answer themselves. In the 2020 Fraser Institute Survey, Queensland came 29th out of 77 for Policy Perception. So, Queensland can set itself apart from other resource rich areas by fixing the Policy Perception (and the Policy Reality).

Policy Perception includes elements such as uncertainty concerning the administration, interpretation, and enforcement of existing regulations; environmental regulations; regulatory duplication and inconsistencies; taxation; uncertainty

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13 Research paper release: Improving regulation
14 Fraser Institute Annual Survey of Mining Companies 2020
The current ‘Delivery Priorities’ for the Minister for Environment and the Minister for Resources are not structured in a way that improves sustainable mining practices. The only shared priority the two ministers have is “Continue to implement the Governments reforms to mine rehabilitation and financial assurance”. This does not help Queensland develop and expand sustainable and ethical mines to deliver the minerals needed for the Environment Ministers top Delivery Priorities:

- Continue to lead implementation of the Queensland Governments Climate Adaptation Strategy and Climate Transition Strategy.
- Oversee the development of the Climate Action Plan 2020–2030, through consultation with industry and community and generate actions to reduce emissions and sustainability initiatives.

Recommendation:

- Add to the Minister for Environment’s delivery priorities to help supply the minerals needed to achieve the Queensland Government Renewable Energy Target

8.2 Environment and Social Governance

Environment and Social Governance (ESG) and ESG metrics hold a very real place for the future planning and future proofing of the resources industry in Queensland. Currently Queensland holds a significant amount of sustainably approved resources that have undertaken extensive approval process both on a State and Federal level and are maintaining these approvals over prolonged periods of time. In conjunction with actively planning and managing sites for decommissioning and closure. This means that the Queensland resource industry is a jurisdiction of choice when it comes to a demonstrated existing operational framework as well as a proven history of sound sustainable performance.

What this means is that any future plan to transition to lower carbon industries should focus on developing existing networks, sites, communities, and resources that are currently in place. Environmentally this means consolidating existing impacted areas and utilizing existing development (rail, ports mine sites with established workshops and storage facilities), while minimising future residual impacts.

Socially, the Queensland resource industry is a well-established network of robust and resilient communities, with long lasting infrastructure, commitments and know how. For future industries there is already an established skilled, experienced, and consistent workforce, as well as communities developed and supportive of industry and industry transition.
The Resource Industry in Queensland has good and improving connections and relationships within government. This helps ensure companies are operating in manner consistent with government and most community (domestic and international) expectations around resource extraction.

There is a real opportunity for the whole world to benefit from sustainably and ethically sourced minerals from Queensland. A Vision for a Sustainable Battery Value Chain in 2030, World Economic Forum Report from 2019 states that to produce “batteries sustainably means lowering emissions, eliminating human rights violations, ensuring safe working conditions across the value chain, and improving repurposing and recycling.”

Creating more of the battery material in Queensland will not only make them more sustainable, it will also help our economy.

The same World Economic Forum Report provides a chart outlining where the percentages of battery value will be in 2030. Only 3% of a batteries value comes from Mining, this is the lowest proportion input throughout the whole lifecycle. We are missing out on 97% of a batteries value by only providing the raw materials. Even the “Reusing and recycling” part of the process has a higher proportion of the value at 4%.

![Figure 8 Battery value chain opportunities of $300 billion in 2030](image)

**Figure 8 Battery value chain opportunities of $300 billion in 2030**

Recommendation:

- Encourage existing minerals processing and value adding (refining) facilities to stay in Queensland and incentivise new facilities to set up
- Help create a value chain for the battery industry through initiatives like co-funding manufacturing for downstream battery components
- Use good policy to continue and expand on Queensland’s ‘good governance’ reputation
- Work with the Federal Government to develop ‘traceability’ or ‘tracking’ standards so customers know where the minerals for their products are sourced

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15 “A Vision for a Sustainable Battery Value Chain in 2030” World Economic Forum Insight Report

16 “A Vision for a Sustainable Battery Value Chain in 2030” World Economic Forum Insight Report
8.3 Land Access

The ability for exploration companies to access their exploration permits throughout Queensland is extremely inconsistent. This uncertainty of access has driven many explorers away from the jurisdiction to areas where there is more certainty regarding the timing and cost to access their tenements. A clear and consistent land access framework would benefit explorers and landholders and would reduce time and costs added by lengthy and stressful legal processes.

Overlapping land uses are emerging, such as renewable energy projects occupiers (wind and solar proponents) overlapping with exploration leases. Land access under these conditions is becoming complicated for exploration companies and competing land occupiers. Agreements need to be arranged with multiple stakeholders for the same pieces of land. There is no better time than now to have a fresh look at Land Access in Queensland due to these increasing complexities.

AMEC appreciates the Department of Resources efforts to assist with difficult cases, but often competing interests and legal processes are taking time and money from both landholders and exploration companies. The proposed updates the land access guidelines are a start, but will not make a difference to the majority of problems currently being experienced.

Recommendation:
- Implement a clear and consistent land access framework
- Consider an option to have an independent arbitration (when land access agreements break down), rather than the next available option been litigation proceedings, it reduces costs to companies and individuals.

8.4 Developing Mineral Regions

The regional stakeholder sessions conducted as part of the QRIDP process has been great. But it focussed on established mining regions. AMEC raised this issue at the post launch briefing and suggested Cairns or Bundaberg as additional options as emerging opportunities. The suggestion was discarded as ‘there is nothing there’… which actually reinforced the point trying to be made. There are areas with smaller scale mining that are actually ‘developing’ that should be managed in a considered way to ensure all stakeholders (community, government and developers) are included. In developing a plan on this scale (30 years), it is extremely important to consider the future (developing) minerals areas.

Recommendation:
- Work with stakeholders in developing minerals regions to assist with sustainable development and good ESG practices
- Review the mineral projects in the development ‘pipeline’ in key regions (e.g. Julia Creek, North West Minerals Province, Wide Bay Burnett Minerals Region and the Hodgkinson Province) and work with proponents on what capital investment would positively impact their feasibility studies

8.5 Environmental Mapping

There are many areas in the state where exploration is severely restricted on erroneous environmental grounds. Examples include:
- The ‘repealed’ Wild Rivers areas, where the areas are now designated ‘Strategic Environmental Areas’
- Often cattle are grazing in the ‘sensitive ecosystem/wetland’ as part of a pastoral lease, but lower impact exploration activity is not permitted within the overlying exploration permit area
• Explorers aren’t seeing or encountering the mapped vegetation in environmentally significant areas when they go to these sites

A large part of the Herbarium mapping is based on satellite images and remote sensing. AMEC understands that the Queensland Government Herbarium is working to cross reference this information. According to the Queensland Department of Environment and Science:

“Regional ecosystem mapping is based on field survey, analysis of aerial photographs and satellite imagery, and assessment of other data such as geology and soil mapping and historical survey plans.”

Currently there is a significant delay in the Queensland Herbarium’s identification of errors in existing mapping of regional ecosystems. Further, the updating of the maps only occurs every two years. If companies find vegetation incorrectly mapped, it is difficult and costly for the company to get it corrected. Also, there is no motivation or incentive for companies to report potentially incorrectly mapped ‘clear’ areas that might actually have sensitive vegetation.

Recommendation:

• Update digitally published vegetation maps more regularly
• Make it simpler to report potentially incorrectly mapped areas to the appropriate agency for follow up
• Remove the cost and time burden of incorrect mapping from the explorer by enabling Herbarium staff to make field visits when errors are reported

8.6 Data and Reporting Obligations

Exploration and mining companies have reporting conditions as part of their tenure and environmental obligations. Companies are required to supply data in different formats to different State Government agencies for different timeframes annually. This leads to significant duplication of effort from both the reporting entity and the receiving agency (Queensland Government). It is more difficult for the receiving party to see the duplication, as the agencies are in silos and don’t see that the same or very similar information has already been supplied.

Recommendation:

• Remove duplicating data submissions by consolidation and coordination of data across agencies
• Develop and annual compliance report based on the level of interactions, reporting and inspections carried out annual by the Departments to demonstrate industries commitment to and ability to uphold licences that are issued.

8.7 Transfer (Stamp) Duty

Transfer duty is charged on transactions involving resource authorities in Queensland. Certain licences under the Petroleum and Gas (Production and Safety) Act 2004 are exempt from paying transfer duty.

17 Survey and mapping ecosystems
18 Definitions of transfer duty terms
Transfer duty is an economically inefficient indirect tax as it is a dis-incentive to investment and business transactions. Contemporary academic analysis has suggested that removal of, or reduction in, transfer duty would increase economic output. Members have advised that the amount of stamp duty can be a deterrent to a transfer transaction occurring.

AMEC considers that reducing the burden of stamp duties would be an appropriate and desirable way to facilitate an increase in mineral exploration activity and stimulate economic growth.

Further, exemption of mineral exploration tenement transfers from stamp duty would result in an increase in joint ventures, mergers and acquisitions and facilitate transactions leading to more active exploration, and in many cases result in some ‘stranded projects’ being resurrected and exploration activity re-commencing.

Recommendation:

- All exploration tenure be exempt from transfer duty

**8.8 Exploration and Mining ‘Administration’ and compliance costs**

Explorers and Producers face a multiplicity of fees, charges and levies, with little or no clarity around the actual costs involved or any recognition of the benefits the resource discovery subsequently brings to the State. The cumulative effect of meeting these costs is a reduction in investment.

It will be of benefit to industry and Government to make the system more cost efficient. Every dollar paid in levies or fees is a dollar lost on investment and in work on the ground to explore for mineral reserves. The investors that do contribute to the exploration sector are often deterred when they see their funds simply flowing to government bureaucracy with no demonstrable benefit to industry, environment, the community or the State.

Discoveries can’t be made if explorers can’t get on the ground. Relative to other Industries, the Exploration & Mining Industry takes a disproportionate amount of the heavy lifting (economically and socially) for the State through:

- Royalties
- Tenure fees
- Environmental fees and assurances
- Native Title arrangements
- Conduct and Compensation Agreements
- Legal Costs

The time involved in these processes is also a ‘cost’ as it all causes delays for explorers to get access to the ground they are paying for. Exploration Permit holders are paying more in lease fees for significantly less rights to the land compared to other types of land lease holders.

There are other costs associated with administration that are rarely raised. Normally the costs associated with complying to regulations are easily budgeted for explorers, but during drought periods there are often unanticipated costs associated with biosecurity compliance due to lack of access to wash down facilities. Some communities close the wash down facilities to preserve town water, which means trucks need to find alternative ways and places to comply to these regulations. Explorers want to do the right thing, but at certain times of the year local communities make this difficult and costly.
The current administration costs are also a deterrent to companies keen to work on historic mine sites and tailings. A fresh approach is required collectively by the Queensland Government in seeing these sites as opportunities to further develop our resources as well as an opportunity to reduce the government’s environmental liability. Proposals to re-process mine tailings and re-visit abandoned mine sites offer obvious potential. Previously disturbed sites are given the same environmental scrutiny as a greenfield site and therefore have the same rehabilitation cost requirement, even when the reprocessing process has a rehabilitation component.

Recommendation:

- **Incentivise explorers through discounts on rents and fees to ensure that Queensland has a fair and competitive regime that supports the development of the minerals sector**
- **Deliver community programs to increase state-wide community understanding of the resources sector**
- **Ensure Local Councils are providing adequate wash down facilities or consider a risk management approach to Biosecurity for explorers when wash down facilities are not operational**
- **Government to co-ordinate more frequent and regionally diverse stakeholder sessions between landholders, industry and Key Government agencies regulating the industry (e.g. DES and DoR)**
- **Incentivise companies proposing to reprocess tailings or work on abandoned/ historic mines sites by not imposing excess environmental liabilities**

8.9 Royalties

AMEC understands that royalties from mining make a significant contribution to the Queensland economy. Low sovereign risk is a major factor that investors consider when looking at Queensland. Certainty around Royalties positively contributes to investment decisions.

Recommendation:

- **Maintain certainty around royalty rates for all mineral commodities**

8.10 Safety communication and compliance

Late in 2019 there were changes to the Mining & Quarrying Safety and Health Act 1999 and Regulations 2017. Some exploration companies were not aware that these changes applied to them as they were ‘only drilling, not mining’. AMEC is keen to work with Resources Safety & Health Queensland to help communicate these types of important changes to industry and increase regular communication and demystify safety for smaller companies who manage safety ‘in-house’.

Recommendation:

- **Ensure Safety is included in the Department of Resources regular community information sessions**
- **Work with industry to develop safety templates that make it easier for smaller companies to implement changes and ensure compliance**
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