

FIFO

REVIEW REPORT JULY 2015

An independent review of existing, predominantly
fly-in-fly-out resource projects in Queensland

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Executive summary

During the past 15 years, there has been an unprecedented increase in resource activity in Queensland with significant new mining ventures in the Bowen Basin coal region and the North West minerals region. In addition, a \$70 billion investment has occurred in coal seam gas (CSG) extraction in South West Queensland and in liquefied natural gas (LNG) production facilities in Gladstone. These investments have led to heightened economic activity and population growth, reversing the 1990's declining population trend witnessed in the resource regions.

The mining industry in Queensland contributed \$27.4 billion to Queensland's economy in real terms in 2013–14, compared to an estimated \$15.1 billion in 1999–2000. This represents an annual average growth rate of 4.36% over the last 14 years.

Whilst the resource industry contributes significantly to the economy in both value added terms and employment, many resource community stakeholders have expressed concern that the increased use of non-residential, fly-in-fly-out (FIFO) operational personnel by resource companies is having a detrimental economic impact on their communities.

A number of resource activities, especially in the North West minerals region and in the oil and gas region in the south-west corner of the state, have historically operated with up to 100% non-residential, operational workforces, due to the activity being in a remote location.

However, in recent years, there has been an increase in all resource regions in the non-residential proportion of resource industry operational workforces located within safe travelling distance of a resource community.

The Queensland Government Statistician's Office reported that of the 41 coal mining operations in the Bowen Basin region, 13 utilised over 90% non-residential workers in 2014 with a further 10 mines operating with over 70% to 90% non-residential workers.

The reasons include workforce recruitment policy of the mine owner, location of the mine, employee lifestyle choices, better roads, cheaper airfares, the provision of free or subsidised airfares and buses, roster arrangements, workplace health and safety, the use of contractors, and an increasing casualisation of operational workforces.

The panel was charged with determining the economic impact of non-resident operational workforces on resource communities, nearby regional communities and source communities and make recommendations to the Minister for State Development.

Those resource communities that were built to service mining operations advise that the increase in non-resident operational workforces is having a negative impact on employment and on the economic sustainability of their communities.

This view accords with consistent advice provided to the panel by the majority of economic stakeholders throughout all resource regions.

In contrast, a number of nearby regional communities and source communities within Queensland, especially those in coastal locations, advise they have experienced increased economic activity as mine workers choose to live away from resource communities.

Reported data on resource industry economic activity combines both construction and operational activity. This has made it difficult to specifically pinpoint the economic impact of the recent trend towards an increasing proportion of non-resident workers in operational workforces.

For example, resource construction activity grew dramatically in the 2006–2012 period. It stretched the capacity of resource communities and resulted in an influx of non-residential construction workers. Since 2012, the demand for non-resident construction workforce has declined with the completion of construction activity. At the same time, operational workforces have declined as a result of depressed commodity prices and a significant tightening of operational budgets.

These combined factors have had a detrimental impact on the economies of resource communities, and also in some cases, nearby regional communities. However, it is the longer term operational workforces and the economic benefits they provide that underpin the sustainability of the resource communities. The panel recommends that data collection activities be expanded and coordinated so that the non-residential, operational workforce trend and its impact can be isolated and quantified.

Despite the lack of data on economic impacts of operational non-resident workforces, the overwhelming majority of resource community economic stakeholders expressed strong opposition to resource companies specifying predominantly non-resident operational workforces for activities located within safe travelling distance of their communities.

Whilst acknowledging the concerns of these stakeholders, the panel recognises the limited legal and legislative options open to the Queensland Government and does not support altering existing approvals granted for resource activities in Queensland. In the panel's view, such an action would impact negatively on the sovereign risk profile of resource activity within Queensland and as such hinder the future development of Queensland's rich and abundant resources.

However, the panel recommends the Queensland Government continues to explore all policy or legislative options in relation to existing 100% FIFO resource projects located near a resource town or regional community which would require operational workers to be given a choice of where to live. The panel also recommends the Queensland Government urge the resource sector, in the interest of maintaining a strong social licence to operate, to source suitable operational replacement workers, whether directly employed or employed by contractors, where available, from resource communities or nearby regional communities.

For future resource activities, the panel has made recommendations with respect to approval conditions governing the sourcing of operational workforces. The Queensland Government can favourably influence economic outcomes for resource and nearby regional communities by conditioning new resource projects, which are assessed to

have a significant economic impact, to prepare a workforce plan for its operational workforce that supports employment in resource and nearby regional communities.

Local supply of goods and services for operational resource activities, and the location and degree of community integration of operational workforce accommodation villages, also influence the economic impact of predominantly non-resident operations on resource and nearby regional communities. As such the panel's recommendations extend to the preparation of procurement and accommodation plans for the operational workforce of future resource activities.

It is the panel's view that, whilst policy guidelines for each plan can be provided by government, the content and desired outcomes from the plans should be developed by the resource activity proponent to the satisfaction of the Queensland Government.

Preparation of the plans must include consultation with the local council and community and take into consideration the specific circumstances of the proposed activity and its assessed economic impact on the relevant resource region.

The major requirement underpinning each plan is for the resource industry proponent to demonstrate that reasonable efforts have been made to facilitate a sustainable economic benefit for the resource community and nearby regional communities from the proposed activity.

In advising the Minister for State Development on policy and legislative options, the panel has also recommended appropriate monitoring and enforcement of the approved plans throughout the duration of the resource activity. The recommendation facilitates revised conditions to accommodate a change in circumstance during the life of a project, as well as ensuring compliance with agreed outcome measures.

With resource workers less constrained by the tyranny of distance due to better roads and competitively priced airfares, communities within the resource regions have to build a competitive liveability, social and economic profile to attract workers to choose to live in their communities. The Queensland Government should give consideration to the type of assistance it can provide to communities to achieve that outcome.

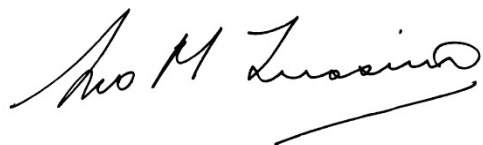
The panel recommends that local councils with resource activity in their local government area be encouraged by the Queensland Government to develop or improve long-term sustainable economic strategies to help manage cumulative impacts.

The panel also recommends that economic strategic plans be complemented by social infrastructure strategic plans to assist councils to improve the liveability and economic sustainability of their regions.

An essential factor in the preparation of all plans proposed by the panel is the need for comprehensive, reliable and coordinated data on the operational workforce, accommodation and procurement activities of all resource activities operating in Queensland. As such, the panel has made a recommendation to improve data collection, coordination and reporting.

The recommendations provided by the panel with respect to the conditioning by the Queensland Government of operational workforce, procurement and accommodation plans, if adopted, establish a robust and enforceable framework to ensure the sustainability of communities within the resource regions as new resource activity is undertaken.

Combined with the implementation of considered economic and social strategic plans by appropriate local councils, the recommended actions will assist resource communities and nearby regional communities achieve the desired economic and social outcomes from future operational resource activity within Queensland's resource rich regions.

A handwritten signature in black ink, appearing to read 'Leo M. Zussino', with a long horizontal flourish underneath.

Leo Zussino
Panel Chair

Recommendations

Recommendation 1: Conditioning new resource activities

Recommendation 1A: That legislation be enacted to extend the powers of the Queensland Government to condition resource proponents to prepare appropriate workforce, procurement and accommodation plans for proposed resource activities assessed under the *Environmental Protection Act 1994*. The conditions apply to those resource activities deemed by the approval agency to have a substantive economic impact.

The plans should be formulated by the resource activity proponent in conjunction with the appropriate government agencies and the local council and include measureable performance outcomes to the satisfaction of the approval agency.

Conditioning of the operational resource activities is to apply for the life of the activity and all plans approved must have built-in conditions to facilitate review of the plans to meet changed circumstances throughout the life of the activity.

Recommendation 1B: Workforce plan

That the Queensland Government requires resource activity proponents to develop a workforce plan to the satisfaction of the government that:

- demonstrates a robust and sustainable commitment to hiring and training personnel from resource communities first, followed by nearby regional communities and then from within the state of Queensland and beyond
- incorporates a timely review process to ensure relevance and adaptability of the workforce plan during the life of the resource activity.

The plan is to contain employment targets for Indigenous, female, apprentices and disabled persons and for local postcode employees after assessing the available employment pool.

The plan must include all operational employees whether employed directly, by contractors or by other recruitment arrangements

No future resource activity, within safe travelling distance of existing resource communities or regional communities, should be conditioned to allow 100% FIFO.

Recommendation 1C: Procurement plan

That the Queensland Government requires resource activity proponents to develop an operational activity procurement plan to the satisfaction of government. The procurement plan should conform with an industry code of practice for local content, e.g. *Queensland Resources and Energy Sector Code of Practice for Local Content (2013)*.

The plan is to incorporate procurement activities undertaken by contractors and sub-contractors engaged to undertake operational resource activities (including worker accommodation) on behalf of the resource activity owner.

The plan should demonstrate a robust and sustainable commitment to:

- the assessment and development of resource communities and nearby regional supplier capacity and capability
- procurement from resource community and nearby regional community suppliers
- consideration of sustainable contract duration and payment terms taking into account the regional supplier capability and capacity
- a timely review process to ensure relevance and adaptability of the procurement plan during the life of the resource activity.

Recommendation 1D: Accommodation plan

That the Queensland Government requires the resource activity proponent to develop an operational accommodation plan which:

- adequately addresses the availability of existing suitable housing and land stock in that community
- demonstrates the need, if any, for additional accommodation beyond existing capacity
- includes the size and staging of any proposed operational workforce village or other alternative structures
- ensures the operational workforce village complies with accommodation standards, such as the *Guideline for Non-Resident Workforce Accommodation (PDA Guideline no.3)*, March 2014, set by the Queensland Government in consultation with the regional council
- enforces the plan's conditions on all contractors and sub-contractors engaged by the resource activity owner to operate the activity
- incorporates timely review processes to ensure relevance and adaptability of the accommodation plan during the life of the resource activity.

Preparation of the plan must include consultation about the proposed location of the camp with the affected local council and community stakeholders (where the workforce village is deemed necessary by the state).

Recommendation 2: Monitoring of approval conditions

Recommendation 2A: That the Queensland Government develops in conjunction with the resource sector, through its nominated body, a portal which facilitates reporting on compliance with approved workforce, procurement and accommodation plans.

That leaseholders of existing resource activities be approached to voluntarily report on the agreed data to help guide both the Queensland and relevant local governments better plan for appropriate economic and social outcomes for the resource regions of Queensland.

Reporting should address the following matters:

Recommendation 2B: Workforce plan

- Number of employees and trainees by distance from the resource activity determined by an agreed designation relevant to the location of the activity (e.g. postcode of principal place of residence).
- Number of employees and trainees who are Indigenous, female, or have a disability.
- Reporting from all contractors engaged to undertake operational resource activities.
- The results of an independent audit of the approved workforce plans undertaken at agreed periodic intervals (e.g. every five years).

Recommendation 2C: Procurement plan

- The dollar amount and proportion of procurement sourced from resource communities and nearby regional communities.
- The activities undertaken by the operational activity to help build supplier capability and capacity.
- Advice on any preferential supplier terms and conditions including preferential payment terms.
- Reporting from all contractors engaged to undertake operational resource activities.
- The results of an independent audit of the approved workforce plans undertaken at agreed periodic intervals (e.g. every five years).

Where the proponent engages services of a third party provider to accommodate a non-resident workforce, reporting under the conditions of the procurement plan is voluntary. However, the data can be incorporated into the leaseholder's procurement plan to meet their obligations under the plan.

Recommendation 2D: Accommodation plan

- Number of rooms proposed.
- The number of rooms already constructed and the number of rooms approved but not yet constructed.
- Designated rooms for motelling.
- Number of operational workforce in residence at agreed reporting intervals.
- Reporting from all contractors engaged to undertake operational resource activities.
- The results of an independent audit of the approved accommodation plans undertaken at agreed periodic intervals (e.g. every five years).

Recommendation 3: Enforcement

That the Queensland Government develop, in conjunction with the resource sector, appropriate enforceable cure provisions and procedures with respect to compliance with approved workforce, procurement and accommodation plans for new resource activities.

Failure to comply with the plans at the completion of the cure processes should invoke appropriate financial penalties as determined by the Queensland Government.

Recommendation 4: Existing approvals

In the interest of maintaining a competitive environment and minimising sovereign risk for Queensland's resource sector, it is recommended that no retrospective action that would impact upon the existing workforce be taken to alter existing approvals in Queensland.

However, the panel recommends the Queensland Government continues to explore all policy or legislative options in relation to existing 100% FIFO resource projects located near a resource town or regional community which would require operational workers to be given a choice of where to live.

The panel also recommends the Queensland Government urge the resource sector, in the interest of maintaining a strong social licence to operate, to source suitable operational replacement workers, whether directly employed or employed by contractors, where available, from resource communities or nearby regional communities.

Recommendation 5: Data collection

That an appropriate government agency collates and reports at appropriate survey times:

- the total number of workers by operation, identifying all direct hire, contract/casual and apprentice workers, and the principal place of residence by postcode of each worker
- the mode of transport for commuting from principal place of residence to workplace
- type of accommodation during roster
- workforce diversity, including Indigenous, female, workers with a disability.

The industry data should be made available to all relevant stakeholders including relevant local councils.

Recommendation 6: Economic impact of non-resident workforce trends

That the Queensland Government:

- review existing studies on the economic impact of non-resident operational workforces on resource and nearby regional communities
- undertake any further required work in order to establish a mechanism to accurately assess the impact of non-resident operational workforces.

Recommendation 7: Queensland Local Government Grants Commission

That government:

- consider the impacts of an operational non-resident workforce on the ability of a local government to deliver services
- consider reinstating the cost methodology of non-resident service expenditure, or any other appropriate measures, when the Queensland Local Government Grants Commission makes recommendations about grant funds.

Recommendation 8: Empowering councils

To attract and provide genuine choice for workers and their families to live in resource communities, a continued investment in economic and social/community infrastructure is required.

To achieve this, the panel recommends the Queensland Government encourage local councils located within resource regions to develop or modify long-term sustainable economic strategies complemented by social infrastructure strategic plans. The purpose of these plans is to assist councils assess the cumulative impact of current and projected activities and the economic and social/community infrastructure required as a result of those activities.

That state government provide planning advice to resource region local councils during the development of the strategic plans.

That at the time of project approval of a new resource activity, the Queensland Government gives consideration to funding the local council to deliver infrastructure priorities identified in the strategic plans.

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1.0 Introduction

During the 2015 Queensland election, as part of its Strong and Sustainable Resource Communities election policy, Queensland Labor committed to undertaking a review of existing 100% fly-in-fly-out (FIFO) approvals. If elected to government, it also committed to establish a Queensland Parliamentary inquiry into FIFO workers and mental health impacts.

The appointment of an expert panel to undertake the review was announced on 6 May 2015 with a final report due to be provided to the Minister for State Development by 31 July 2015.

The separate parliamentary inquiry into *FIFO workers and other long distance commuting practices* was announced by the newly elected Queensland Labor Government on 27 March 2015. The inquiry is being undertaken by the Infrastructure, Planning and Natural Resources Committee chaired by Mr Jim Pearce MP, Member for Mirani. The committee is due to report to the Legislative Assembly by 30 September 2015.

Collectively, the parliamentary inquiry and this report from the expert panel are intended to inform the development of a whole of government policy framework to ensure strong and sustainable resource communities.

1.1 FIFO Review Panel

Leo Zussino, former Chair of Gladstone Ports Corporation chaired the FIFO Review Panel and was supported by Councillor Anne Baker, Mayor of Isaac Regional Council, Councillor Deirdre Comerford, Mayor of Mackay Regional Council and Doctor Geoff Dickie, Chair of the Queensland Exploration Council. The biographies of the panel members are at **Appendix 1**.

1.2 Purpose of the review

Historically operational workforces within the Queensland resource sector were established in regional areas through either the growth of existing communities (such as Emerald or Dalby) or within towns which were purpose built by the resource company (such as Moura, Tieri, Dysart, Greenvale, Moranbah and Mary Kathleen).

Over the past decade, there has been a shift away from workers permanently living within resource regions. The workers stay in accommodation villages within or outside of existing resource communities and nearby regional communities. This trend has raised community concerns over the economic and social sustainability of resource communities.

The purpose of the review is to identify existing up to 100% non-resident operational workforces, as well as those mines where there is a predominantly non-resident operational workforce (90% or higher). The review will also examine the economic impact of FIFO work practices in resource communities, nearby regional communities and also the communities where the FIFO workers live, known as source communities.

It makes recommendations to the Queensland Government with respect to existing approvals and with respect to conditioning of future resource activities within Queensland.

This report uses the term FIFO and adopts the definition of non-resident worker from the Queensland Government Statistician's Office, discussed further in **section 5.0** of this report.

During May and June 2015, the panel travelled to 13 locations: Gladstone, Biloela, Rockhampton, Mackay, Moranbah, Townsville, Mount Isa, Cloncurry, Toowoomba, Proserpine, Roma, Emerald and Brisbane to undertake stakeholder consultation.

The panel met with more than 80 stakeholders during consultation including the resource industry, local government, members of parliament, peak bodies, economic development groups, community associations and universities. The full list of stakeholder groups is at **Appendix 2**.

Stakeholder feedback is discussed throughout this report. A general summary of the main issues raised during consultation is included in **Appendix 3**.

Information collected during the course of the review was dealt with in a confidential manner. No information is attributed to a particular individual, company, or organisation. However, the panel has used some examples of good industry practice and as such, has identified the stakeholder as this information is publicly available.

1.3 Definition of terms

The panel identified some complexities with determining a non-resident operational worker.

The Productivity Commission recently noted, 'there is a perception that long-distance commuting is growing, especially in the resources sector. However, there is no one accepted definition of long-distance commuting or way to measure it'.¹

The Queensland Government Statistician's Office uses the following definition:

Non-resident workers are people who fly-in/fly-out or drive-in/dive-out (FIFO/DIDO) to work and live in the area temporarily while rostered on, and who have their usual place of residence elsewhere. Non-resident workers include FIFO/DIDO mining and gas industry employees and contractors, construction workers and associated sub-contractors.²

The panel has adopted the Queensland Government Statistician's Office definition of non-resident worker and will use this terminology in the rest of this report.

¹ Productivity Commission, *Geographic Labour Mobility – Research Report*, April 2014, <http://www.pc.gov.au/inquiries/completed/labour-mobility/report>

² Queensland Government Statistician's Office, *Bowen and Galilee Basins non-resident population projections, 2015 – 2021*, 2015, <http://www.qgso.qld.gov.au/products/reports/bowen-galilee-basins-non-resident-pop-proj/bowen-galilee-basins-non-resident-pop-proj-2015-2021.pdf>

1.4 Terms of reference

Background

The Queensland Government committed to undertaking a review of all existing up to 100% fly-in-fly-out (FIFO) resource projects in Queensland.

Resource projects in Queensland are assessed and may be approved under a number of Acts including the *State Development and Public Works Organisation Act 1971* (State Development Act), the *Environmental Protection Act 1994* (Environmental Protection Act), and the resources Acts (e.g. *Mineral Resources Act 1989*).

This review is separate to but will support the Queensland Parliamentary inquiry into FIFO workers and mental health impacts agreed to by Parliament on 27 March 2015. The Infrastructure, Planning and Natural Resources Committee will report back to Parliament by 30 September 2015.

Scope

The review will investigate the use of FIFO during the operational phase of resource projects in Queensland including:

- identification of 100% or predominantly (i.e. 90% or higher) FIFO resource projects in Queensland including those projects near a resource town or a regional community
- existing approvals and existing approval processes for FIFO, including monitoring and reporting by resource companies
- characteristics of the current workforce for predominantly FIFO projects, e.g. principal place of residence, gender, cultural background, new industry entrants, apprentices
- the workforce profile of resource towns or regional communities near predominantly FIFO resource projects
- the economic costs and benefits for resource towns/regional communities as well as source communities from predominantly FIFO workforce arrangements
- the economic costs and benefits for companies and individuals choosing a predominantly FIFO workforce as an alternative to a resident workforce or to a workforce with a FIFO component
- the circumstances where predominantly FIFO workforce arrangements may be appropriate, where a suitably skilled workforce is not available in a nearby resource town or a regional community, including consideration of the productivity impact on other resource projects and other industry sectors
- policy or legislative options in relation to 100% FIFO resource projects located near a resource town or regional community
- any other relevant matters the review panel considers appropriate.

The findings of the review and recommendations will be provided to the Minister for State Development.

Consultation

Consultation will be undertaken with targeted stakeholders (e.g. local governments, industry, peak bodies, and relevant government agencies) within affected communities across Queensland.

Membership

The review will be undertaken by:

- Mr Leo Zussino, Former Gladstone Port Authority Chairman (Chair)
- Councillor Anne Baker, Mayor of Isaac Regional Council
- Councillor Deirdre Comerford, Mayor of Mackay Regional Council
- Doctor Geoff Dickie, Chair of the Queensland Exploration Council.

Timeframe and reporting

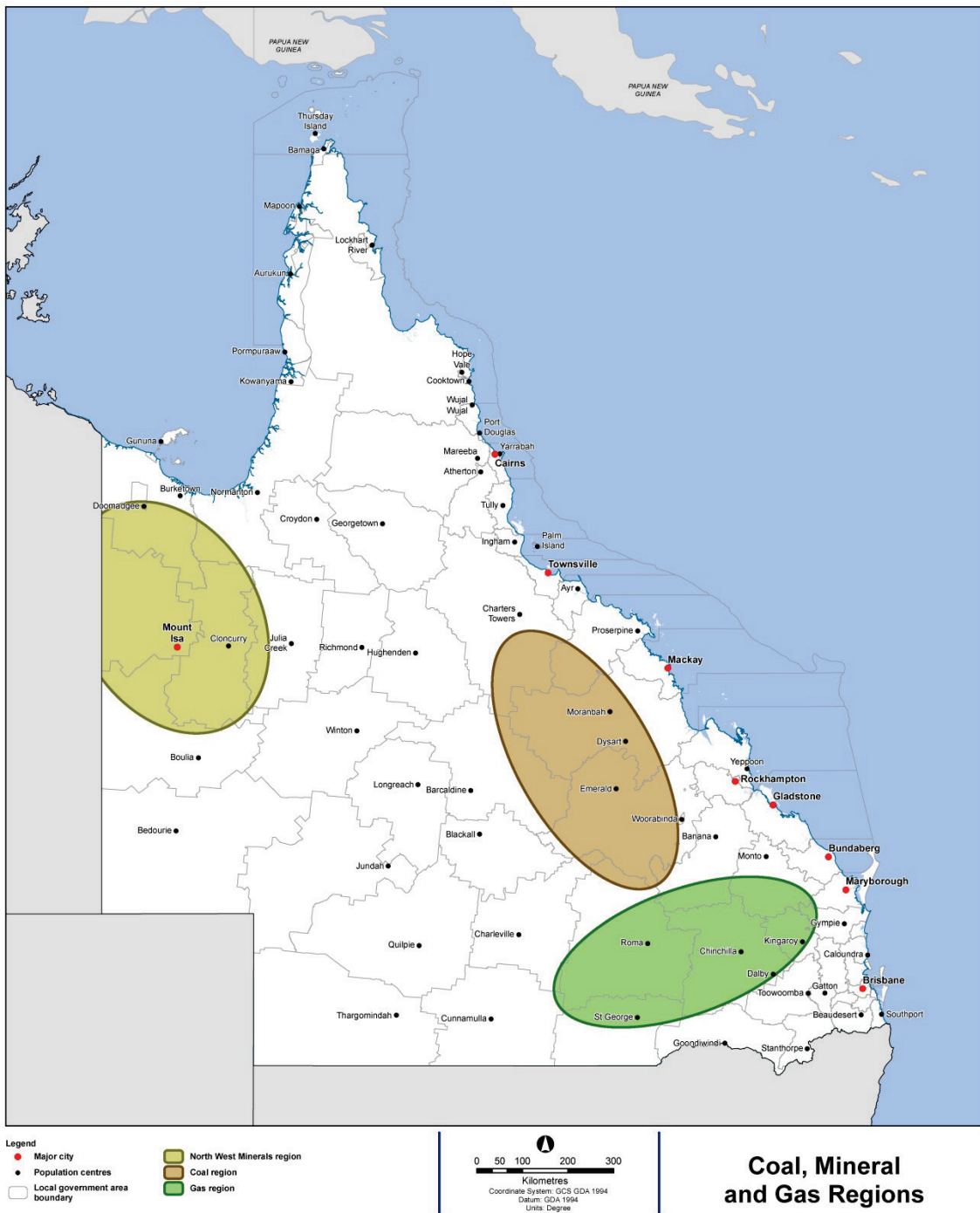
The final report will be provided to the Minister by 31 July 2015 and will be tabled with the Parliamentary Committee Report after consideration by the government.

Secretariat

Secretariat support will be provided by the Department of State Development.

2.0 Queensland's resource sector

For the purpose of this review, the panel has focused on three major resource regions in Queensland—the coal region in Central Queensland, the gas region concentrated in the south-west and the North West minerals region. The panel has excluded more isolated resource communities.



Coal region

The Bowen Basin contains the majority of Queensland's major coal mining activity. The Basin includes the local government areas of Banana Shire Council, Central Highlands Regional Council, Isaac Regional Council, and Whitsunday Regional Council.

The vast majority of coal produced within the Bowen Basin is metallurgical coal used in the production of steel with Australia controlling over 50% of the world traded market in this commodity.

The Queensland Government Statistician's Office advised there are 41 operational coal mines in the Bowen Basin. Unconventional gas exploration and production has escalated in recent years.

Gas region

The Surat Basin is the predominant gas region in Queensland. The Basin includes the local government areas of Maranoa Regional Council, Western Downs Regional Council and Toowoomba Regional Council.

The Surat Basin has experienced an unprecedented increase in CSG activity in recent years and has several thermal coal mining operations.

North West minerals region

The North West minerals region contains Queensland's most concentrated minerals extraction activity. The region includes Mt Isa City Council, Cloncurry Shire Council, McKinlay Shire Council and Burke Shire Council.

The North West minerals region has a number of well-established base metals and precious metals mines in operation producing silver, zinc, copper, lead and gold. The region also has promising fundamentals for the development of rare earth and phosphate mining.

2.1 Growth of the resources industry in Queensland 2004–2014

In the decade from 2004–2014, the resource sector in Queensland experienced unprecedented growth. Employment increased more than three-fold and resource royalties to the state more than doubled.

Figure 1: Comparison of Queensland resources industry 2004–2014

Measure	2004	2014
Employment (persons)	24,000	80,500
Gross State Product	\$19.5 billion	\$27.3 billion
Royalties	\$1 billion	\$2.4 billion
Coal production	156 million tonnes	250 million tonnes
Coal value of production	\$9.6 billion	\$23.6 billion
Mineral value of production	\$5.6 billion	\$9.6 billion
Coal seam gas production	30 petajoules	250 petajoules
Petroleum wells	217	1553
Exploration expenditure	\$244 million	\$1.2 billion

Source: AME Group, Australian Bureau of Statistics and Queensland Treasury

2.2 Current market conditions

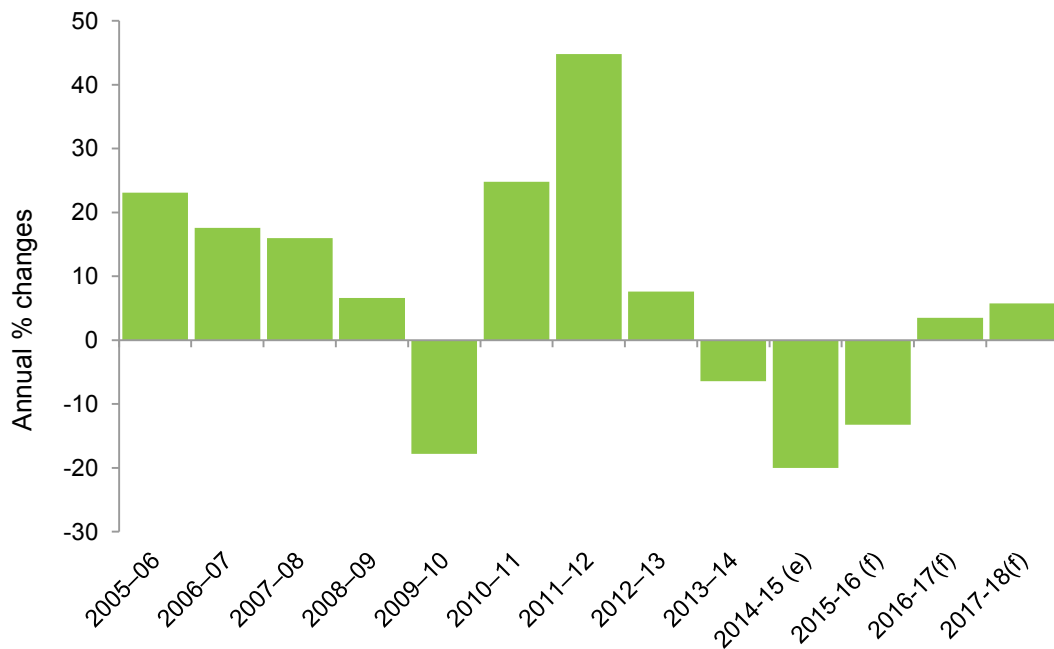
The Queensland economy is currently transitioning from a historically high period of resource sector investment in new projects during the past five years to a significant increase in resource production and export over the past two years. Queensland's latest state final demand estimate reports business investment fell by 11.3% in the March quarter 2015, to be 14.4% lower over the year.

Business investment

Following the unprecedented investment levels of 2011–2014, overall business investment is expected to continue to fall during the remainder of 2015.

The 2015–16 Queensland State Budget forecasts business investment to decline by an estimated 20.0% in 2014–15 and 13.25% in 2015–16 before returning to a more sustainable growth path in 2016–17 and onwards. The annual percentage change in real business investment is shown in **Figure 2**.

Figure 2: Queensland real business investment (annual % change)



Source: Queensland State Accounts, March Quarter 2015, original chain volume measures – period 2005–06 to 2013–14, Queensland State Budget, 2015–16, Budget Strategy and Outlook, 2014–15 is an estimate (e) and 2015–16 to 2017–18 are forecasts (f).

Coal markets

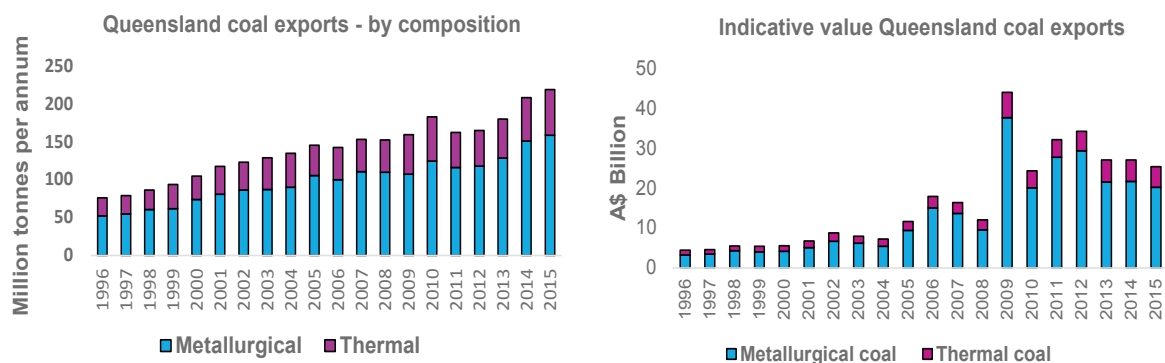
Coal is the largest export industry in the state, with 217 million tonnes exported in the 12 months to May 2015, generating \$27 billion in export revenue.

Although Queensland’s coal exports volumes have been growing strongly, export values are forecast to continue to decline due to depressed export coal prices.

The appreciation of the United States dollar relative to the currencies of major coal producers and a rapid decline in oil prices have provided some relief to struggling coal producers, but a significant increase in production in the short term is unlikely. In the medium and long- term, demand for the high quality Queensland coal into Asia is likely to result in production growth.

Coal export tonnage and coal export values are shown in **Figure 3**.

Figure 3: Queensland coal exports by volume and value (1995–96 to 2014–15)



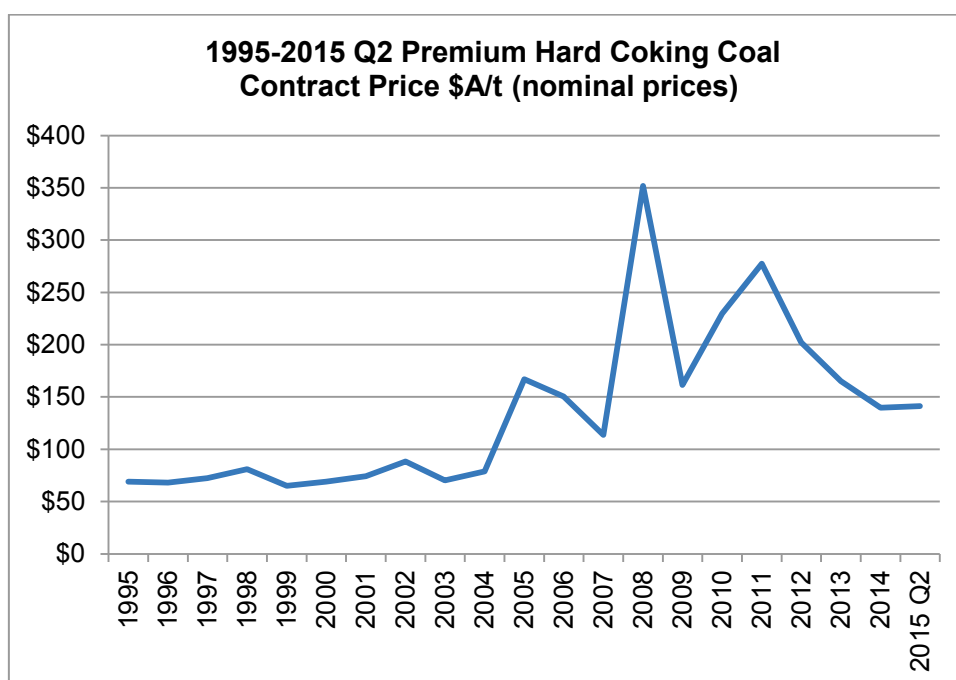
Source: Queensland Coal Transport Report, Transport and Main Roads, June 2015

Metallurgical coal

Over the past three years a supply/demand imbalance has led to a significant reduction in the export price for metallurgical coal. Many metallurgical coal operations throughout the world were unprofitable or marginal at prevailing prices in 2014. An estimated 25 million tonnes of capacity (around 2% of world production) was withdrawn from the global market during 2014 with remaining producers embarking on severe cost-cutting to remain financially viable.

A longer term price series for premium hard coking coal is shown in **Figure 4**. After the marked fluctuations in 2007–2013, prices are now dropping to long-term trend values.

Figure 4: Long-term series of premium hard coking coal prices

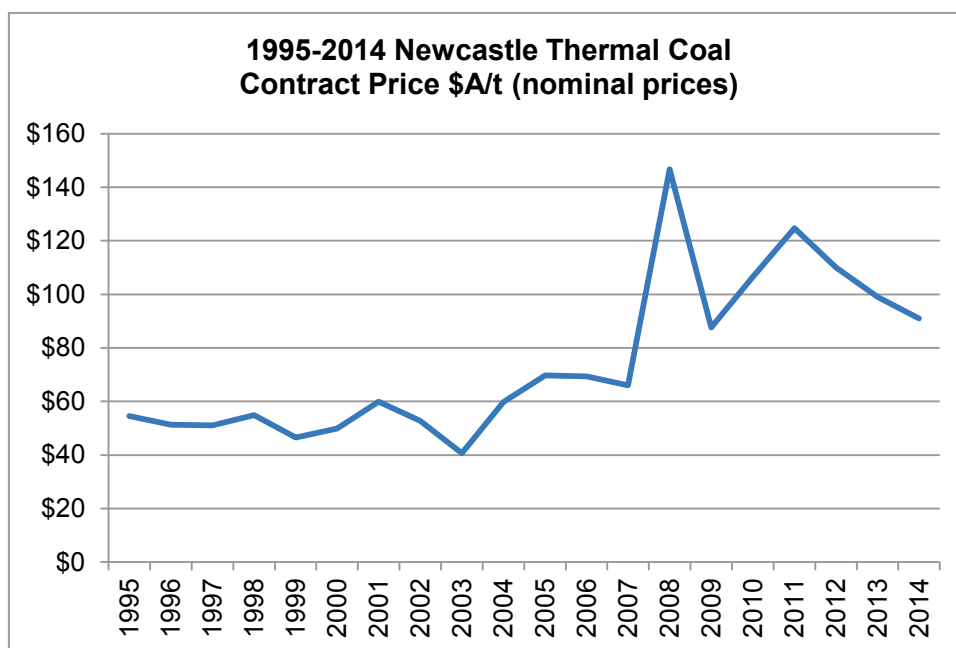


Source: AME Group

Thermal coal

Thermal coal prices declined steadily over the course of 2014, reflecting surplus supply and reduced import demand from China in response to lower domestic prices and the implementation of several policy measures designed to support the domestic industry. Prices have stabilised in 2015 providing growing optimism for the medium to long-term export prospects.

Figure 5: Long-term series of thermal coal prices



Source: AME Group

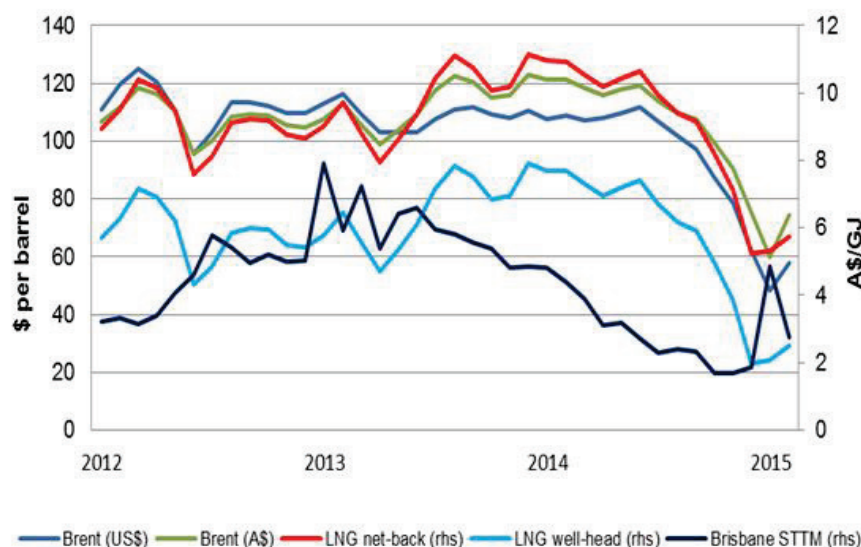
Oil and gas market

The LNG ‘delivered’ price (Asia) is currently A\$11.29 per gigajoule (GJ). Prices for delivered LNG to Asia have averaged approximately A\$12/GJ in recent months and have been kept stable as supply outpaces demand growth.

The LNG ‘net-back’ price is currently A\$5.52/GJ (being the ‘proxy’ cost of domestic gas on the Australian East Coast) (**Figure 6**).

LNG and CSG production will continue to increase in the short term as the LNG plants at Gladstone move to full capacity. Medium and long-term production levels will depend on demand growth in Asia.

Figure 6: Brent crude (US\$ and A\$), LNG net-back and LNG well-head prices



Source: International Monetary Fund, AME Group, Department of Natural Resources and Mines, Australian Energy Market Operator

Base metals and gold markets

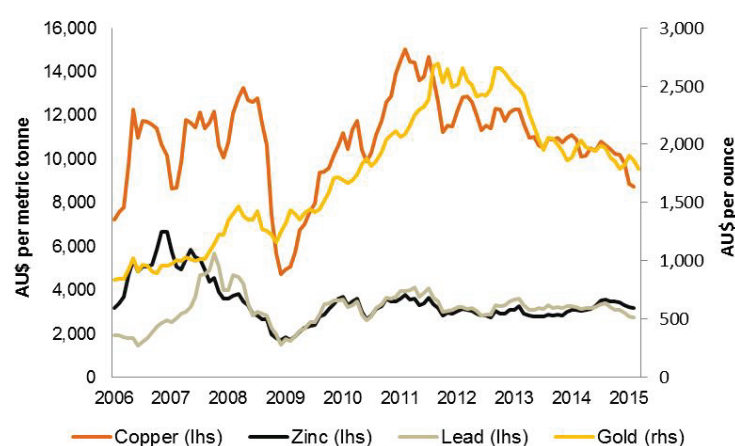
Overall, metal prices have declined as global demand for these commodities slows (**Figure 7**).

The price of copper has fallen consistently over recent years from its recent peak in 2011 at A\$15 000 per tonne to below A\$9000 per tonne in early 2015 (**Figure 7**).

Prices for zinc and lead have remained flat since 2010 averaging around A\$3200 per tonne. After a small recovery in the last half of 2014, lead and zinc prices have retreated in the first quarter of 2015 (**Figure 7**).

Gold has fallen by more than 10% over the past 12 months from A\$2030 per ounce to A\$1791 per ounce (**Figure 7**).

Figure 7: Base metals and gold market 2006–2015



Source: International Monetary Fund, AME Group

2.3 Queensland resource reserves

Queensland has large reserves of untapped resources including coal, primary base metals, precious metals (including gold and silver) and oil and gas.

The level of Queensland's resources and reserves for these key commodities are detailed in **Figure 8** and **Figure 9**.

Figure 8: Resource commodities, production and reserves

Commodity	Qld Production	Qld reserves (proved and probable (2P))	Qld years (reserves/production)
Bauxite ('000t)	26,257	1,533,000	58
Copper (t)	175,254	2,917,723	17
Gold (oz)	524,930	6,124,254	12
Lead (t)	395,858	6,680,091	17
Silver (oz)	34,094,601	527,389,058	15
Zinc (t)	956,740	14,002,523	15
Coal (Mt)	247	14,010	57

Source: Queensland Resources Council

Figure 9: Energy commodities, production and reserves

Natural Gas	Production (PJ)	2P Reserves	Years at current production	Years with LNG fully operational
Conventional	34	474	14	14
CSG	264	41,124	156	23
TOTAL	298	41,598	140	23

Source: Queensland Resources Council

To put the CSG 2P reserves into context, the three liquefaction facilities on Curtis Island are forecast to consume approximately 1500 petajoules (PJ) of CSG per annum, or 30 000 PJ over a 20 year period.

Queensland has smaller resources of conventional natural gas in the Surat-Bowen basins and a proportion of the 1586 PJ of conventional gas in the Cooper Basin.

2.4 Future outlook for Queensland's resources industry

Despite the current depressed financial short term outlook for Queensland's resource sector, commodity prices are cyclical. The continued progress of China, India and South-East Asia, with over three billion people, towards fully developed economies, will provide opportunities in the medium to long-term for the profitable exploitation of Queensland's abundant resources.

Bowen Basin – coal region

Demand for Queensland's high quality coal is forecast to increase over the next decade. The tables below illustrate the projected growing demand for thermal and metallurgical coal primarily from the Asia and the Indian sub-continent.

Of significance is the forecast increase in coal imports (metallurgical and thermal), which will require corresponding investment from industry to meet global demand.

Figure 10: Global forecast for metallurgical coal imports

Mt	2014	2015f	2016f	2017z	2018z	2019z	2020z
China	65	69	72	73	74	75	77
Japan	48	49	49	47	46	45	45
India	44	50	51	52	53	55	58
South Korea	34	34	34	34	34	35	35
European Union	40	41	43	42	44	45	47
World	309	316	320	322	326	330	334

Source: International Energy Agency, Australian Government, Department of Industry and Science (f) – forecast, (z) – projection.

Figure 11: Global forecast for thermal coal imports

Mt	2014	2015f	2016f	2017z	2018z	2019z	2020z
Japan	144	143	140	137	133	130	127
China	229	230	235	242	253	256	261
India	157	174	188	202	216	230	244
South Korea	98	99	102	106	109	111	113
Europe	228	222	224	214	223	225	224
Other	202	209	216	228	244	254	265
World	1058	1077	1106	1129	1178	1206	1235

Source: International Energy Agency, Australian Government, Department of industry and Science (f) forecast, (z) – projection.

As the supply/demand balance is restored, export prices for both thermal and metallurgical coal are expected to recover over the next few years to a level which should encourage a new wave of coal mine developments within Queensland.

Australia's export coal production is forecast to double over the next two decades.³ This will help generate a substantial increase in coal royalty revenue for the Queensland Government.

Appendix 4 illustrates the changes in calculation of royalty rates for coal exports in Queensland driven by the strong growth in the export prices for coal between 2003 to 2012.

Surat, Cooper and Bowen Basins – gas regions

The Australian Government Department of Industry and Science predict that global gas imports are expected to increase from 791 million tonnes in 2015 to 888 million tonnes by 2025 (**Figure 12**). This is equivalent to 10 million tonnes per annum of supply.

The recent growth in the eastern Australian gas production is almost entirely as a result of three new LNG plants constructed on Curtis Island.

The 1500 PJ of gas per annum required to service the LNG export industry presents a major opportunity for Queensland.

Queensland now has a substantial infrastructure supply chain which will facilitate future growth.

Royalty revenue from the new LNG export industry commenced in 2015.

³ Australian Treasury forecasts a doubling of the volume of Australia's metallurgical coal over the period to 2030. Australian Treasury, Long-Run Forecasts of Australia's Terms of Trade, 2014, <http://www.treasury.gov.au/PublicationsAndMedia/Publications/2014/Long-run-forecasts-of-Australias-terms-of-trade/HTML-Publication-Import/4-Exports-of-nonrural-bulk-commodities-iron-ore-and-metallurgical-coal>

Figure 12: Global forecast for gas imports

	2010		2011		2012		2013		2014		2015		2016		2017		2020		2025		Average Annual Growth 2010-25
	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	%
Japan	69	10	78	11	79	11	74	10	77	10	79	10	80	10	80	10	81	10	82	9	1.2
China	9	1	13	2	16	2	19	2	22	3	26	3	31	4	37	5	56	7	83	9	16.0
South Korea	30	4	33	5	36	5	38	5	40	5	41	5	41	5	42	5	44	5	47	5	3.1
United States	78	11	79	11	80	11	80	11	81	10	82	10	83	10	84	10	86	10	88	10	0.8
European Union	309	43	311	42	313	42	316	42	318	41	320	40	322	40	324	40	330	39	336	38	0.6
Russia + other CIS	69	10	69	9	69	9	68	9	68	9	68	9	68	8	68	8	68	8	67	8	-0.3
Other	154	21	155	21	158	21	163	22	169	22	175	22	176	22	177	22	187	22	185	21	1.2
World	718		738		751		759		775		791		801		812		852		888		1.4

Source: Australian Government Department of Industry and Science

Base metals and gold

Demand for base metals is expected to continue to grow as the infrastructure needs of Asia and the Indian subcontinent expand. The continued growth in production will depend on exploration success and cost efficiencies in mining and transportation.

Summary

The panel acknowledges the economic outlook is challenging for Queensland's resource sector in the short term. The sector is focused on reducing costs, increasing productivity and potentially deferring exploration or expansion of existing projects until market conditions improve. However the quality of Queensland's resources and the prospects for continuing discoveries, combined with growing demand for resources in Asia and the Indian subcontinent, point to increasing production and export of Queensland's resource commodities in the medium to long-term.

3.0 Identification of predominantly non-residential resource activities

The terms of reference for the review required the panel to identify resource activities in Queensland with a 90% or greater non-resident operational workforce. However, the lack of readily available data posed a significant challenge for the panel in identifying the operational activities in scope. This is further discussed in **section 8.0**.

The information in this section of the report is based on data provided by government agencies as well as information sourced from industry and other stakeholders.

3.1 Projects close to resource communities

The Queensland Government Statistician's Office does not release mine-specific information in relation to non-resident, operational workforces collected in the resource regions as the office is bound by confidentiality requirements under the *Statistical Returns Act 1896*. The office has advised surveys are undertaken annually, and responses are on a voluntary basis.

The Statistician's Office advised there are 41 coal mines operating in the Bowen Basin region. Two projects have almost 100% non-resident workforces and a further 21 utilised over 70% non-resident workforces in 2014. Of these 21 operations, 11 utilised over 90% non-resident workforces in 2014.

Publicly released data on non-resident workforces does not distinguish between construction and operational workers. The latest available statistics from June 2014 estimated there were 16 360 non-resident construction and operational workers in the Bowen Basin, down from a peak of 25 040 in June 2012.⁴

Projections by the Queensland Government Statistician's Office on the non-resident population for the Bowen and Galilee basins for 2015–2021 show a downward trend.

Based on existing resource operations and projects that have passed final investment decision, it is estimated that the non-resident population for the Bowen and Galilee basins will be 13 670 by 2021, a level similar to the non-resident population recorded in 2008 (13 660 persons).⁵ If projects in the Galilee Basin reach final investment decision, there is projected to be a substantial increase in the non-residential population.

Due to the nature of gas projects, it was difficult for the panel to determine the total number of operations with a 90% or greater non-resident workforce. This is because of the necessary mobility of the workforce across the gas tenements and the different definitions of construction and operational workforces throughout the gas industry.

⁴ Queensland Government Statistician's Office, *Bowen and Galilee Basins non-resident population projections, 2015–2021*, 2015, <http://www.qgso.qld.gov.au/products/reports/bowen-galilee-basins-non-resident-pop-proj/bowen-galilee-basins-non-resident-pop-proj-2015-2021.pdf>

⁵ Queensland Government Statistician's Office, *Bowen and Galilee Basins non-resident population projections, 2015–2021*, 2015, <http://www.qgso.qld.gov.au/products/reports/bowen-galilee-basins-non-resident-pop-proj/bowen-galilee-basins-non-resident-pop-proj-2015-2021.pdf>

There is also limited data collection by the relevant agencies in the Queensland Government.

The CSG-LNG workforce profile is moving from construction to production. There was a significant peak in non-resident workforce in the Surat Basin in June 2014, reaching 14 490 persons, more than four times the estimated number from June 2011 (3270).⁶ During consultation, the CSG-LNG companies advised they were utilising 90% or greater non-resident workforce for some operational activities. Based on existing operations as well as projects that have reached final investment decision, the projected non-resident workforce in the Surat Basin will stabilise at around 3650 persons.⁷

3.2 Remote projects

The panel has not included operations that are more than 45 minutes from a resource community.

Industry advised that it deemed a 'safe driving distance' as 45 minutes or less from an operational site to a worker's residence. *QGN 16 Guidance Note for Fatigue Risk Management* published by the Department of Natural Resources and Mines provides that a commute of more than one hour after a shift has a medium potential for fatigue.

For this reason, the panel has assumed that resource operations more than a 45 minute drive from a resource community are out of scope for this review.

3.3 Conclusion about projects in scope

There is a significant gap in the information available with respect to non-resident operational workforce size and trends. Without this data it is difficult to determine the full scope of the economic impact of non-residential operations on the economies of Queensland's resource communities and nearby regional communities.

Data collection forms an important part of the panel's report and is discussed further in **section 8.0**.

⁶ Queensland Government Statistician's Office, *Surat Basin non-resident population projections, 2015–2021*, 2015, <http://www.qgso.qld.gov.au/products/reports/surat-basin-non-resident-pop-proj/surat-basin-non-resident-pop-proj-2015-2021.pdf>

⁷ Queensland Government Statistician's Office, *Surat Basin non-resident population projections, 2015–2021*, 2015, <http://www.qgso.qld.gov.au/products/reports/surat-basin-non-resident-pop-proj/surat-basin-non-resident-pop-proj-2015-2021.pdf>

4.0 Approvals processes

The panel analysed existing approval pathways for resource projects in Queensland. The economic and social impacts of resource projects may be assessed by:

- a) the Coordinator-General through the Environmental Impact Statement process under the State Development Act or
- b) the Department of Environment and Heritage Protection through the Environmental Impact Statement under the Environmental Protection Act or
- c) the Coordinator-General through an Impact Assessment Report process under the State Development Act.

The State Development Act has criteria to determine whether an applicant meets the requirements for declaration as a coordinated project which will require either an Environmental Impact Statement or an Impact Assessment Report. As at July 2015, no projects have been assessed under the Impact Assessment Report process.

The Environmental Protection Act has criteria for assessing whether an Environmental Impact Statement is required for a proposed resource activity.

The assessment pathway through the Coordinator-General or the Department of Environment and Heritage Protection is usually decided by the proponent. This decision is based on the complexity of the project and which process the proponent considers will be most efficient for the project.

A significant number of major resource projects are not assessed as coordinated projects. Since 2010, 14 resource projects were assessed under the State Development Act and 32 projects were assessed under the Environmental Protection Act.

There is generally a difference in the complexity and scale of these projects.

Greenfield projects assessed⁸ under the State Development Act average 1136 operational employees, ranging in scale from 200 operational employees (Wongai Coal project) to 3920 operational employees (Carmichael Coal Mine and Rail project).

Greenfield projects assessed under the Environmental Protection Act average 282 operational employees, ranging in scale from 10 operational employees (Urquhart Point Mineral Sands Project) to 585 operational employees (Springsure Creek Coal Mine project). Expansion projects assessed under this Act may have larger workforces such as the Newlands Coal Expansion project, which was forecast to provide ongoing employment for 1579 operational employees.

The Coordinator-General has the power to impose social and economic conditions relating to the assessed impact of the proposed activity both on and outside of the resource lease area. In contrast, the Department of Environment and Heritage

⁸ Assessed in this context refers to projects for which the assessment is current or concluded (lapsed, withdrawn or completed).

Protection can only state conditions on the environmental authority for the mining activities that take place within the boundaries of the lease. It does not have the power to impose social and economic conditions relating to assessed impacts outside of the resource lease area.

Throughout the panel's consultation, a variety of stakeholders identified gaps in the current assessment process which need to be addressed.

A common concern from local councils was that smaller projects and extensions to existing projects were being approved without a proper analysis of the cumulative economic and social impacts on resource communities and nearby regional communities. It was suggested that all new projects and extensions of existing projects be assessed and conditioned by the Coordinator-General.

Councils as well as other stakeholders also told the panel that:

- a) there is not sufficient weight being given by the Coordinator-General to the submissions of the community
- b) there is no clear and transparent review process in place after approvals have been granted to assess changes in social and economic impacts of the project during the mine life.

4.1 Monitoring and enforcement

The Office of the Coordinator-General monitors and evaluates whether a proponent's coordinated project is complying with the imposed conditions by the Coordinator-General. Non-compliance is addressed through remediation and/or enforcement action. The enforcement and offence provisions are included in Part 7A of the State Development Act.

In certain circumstances, the Coordinator-General can legally require individuals and proponents to comply with imposed conditions. In these cases, an enforcement notice can be used.

The recipient of an enforcement notice must comply with the notice. The maximum penalty for not complying is 1665 penalty units (\$188 645 for an individual or \$943 223 for a corporation).

The Coordinator-General can seek an enforcement order from the Planning and Environment Court to remedy or restrain a contravention of an enforceable condition.

It is an offence for a person to contravene an enforcement order from the Planning and Environment Court. The maximum penalty for not complying with an enforcement order is 3000 penalty units (\$339 900 for an individual and \$1 699 500 for a corporation), or two years imprisonment.

The Department of Environment and Heritage Protection monitors and enforces environmental conditions through the environmental authority. There are escalating enforcement provisions including:

- warning notices and letters
- penalty infringement notices
- administrative notices and orders made under legislation

- proceedings for court orders provided for under legislation
- prosecution
- suspension or cancellation of permit, licence or authority.

4.2 Changes to existing approvals

A proponent can request a change to conditions imposed by the Coordinator-General. The proponent must include grounds to make the change, for example, a material change in the project from the time of the approval. Any changes to a project or conditions that applied to a project, must be stated in a Coordinator-General's change report.

The Coordinator-General may assess a proposed change to the project on his or her own initiative under sections 35M and 35N of the State Development Act, only where the Coordinator-General has become aware of that change.

The State Development Act does not provide the Coordinator-General with the power to unilaterally amend the conditions in a Coordinator-General's report except under sections 35M and 35N discussed above.

The State Development Act does not provide a power for government to make a direction to the Coordinator-General to make changes to existing approvals.

Retrospective legislation would be required to allow the Coordinator-General to make changes to existing approvals. However this action presents sovereign risk issues for the state. It would undermine business confidence and potentially be open to legal challenge.

Recognising the limited legal and legislative options open to the government and the sovereign risks associated with retrospective legislation, the panel does not recommend making changes to existing approvals.

4.3 Future approvals

The panel has consulted with the relevant government agencies and reviewed the current legislation and approvals processes and notes that:

- a) the Coordinator-General has the power and expertise to impose conditions on resource projects for social and economic impacts, but this power may only be applied to projects that go through the Coordinator-General's Environmental Impact Statement process
- b) the Department of Environment and Heritage Protection has robust monitoring, reporting and enforcement provisions available to it but under the Environmental Protection Act, the department cannot state conditions relating to the economic/social impacts.

The panel has recognised there is a significant deficiency in the Environmental Impact Statement process under the Environmental Protection Act with respect to the social and economic impacts of new projects.

The panel recommends that powers similar to those of the Coordinator-General to condition social and economic impacts of resource activities be extended to all future resource activities under Environmental Protection Act which are deemed by the approval agency to have a substantive economic impact.

The panel also recommends that appropriate monitoring and enforcement of conditions are applied to future projects.

Recommendation 1A: That legislation be enacted to extend the powers of the Queensland Government to condition resource proponents to prepare appropriate workforce, procurement and accommodation plans for proposed resource activities assessed under the *Environmental Protection Act 1994*. The conditions apply to those resource activities deemed by the approval agency to have a substantive economic impact.

The plans should be formulated by the resource activity proponent in conjunction with the appropriate government agencies and the local council and include measureable performance outcomes to the satisfaction of the approval agency.

Conditioning of the operational resource activities is to apply for the life of the activity and all plans approved must have built-in conditions to facilitate review of the plans to meet changed circumstances throughout the life of the activity.

Recommendation 2A: That the Queensland Government develops in conjunction with the resource sector, through its nominated body, a portal which facilitates reporting on compliance with approved workforce, procurement and accommodation plans.

That leaseholders of existing resource activities be approached to voluntarily report on the agreed data to help guide both the Queensland and relevant local governments better plan for appropriate economic and social outcomes for the resource regions of Queensland.

Recommendation 3: Enforcement

That the Queensland Government develop, in conjunction with the resource sector, appropriate enforceable cure provisions and procedures with respect to compliance with approved workforce, procurement and accommodation plans for new resource activities. Failure to comply with the plans at the completion of the cure processes should invoke appropriate financial penalties as determined by the Queensland Government.

Recommendation 4: Existing approvals

In the interest of maintaining a competitive environment and minimising sovereign risk for Queensland's resource sector, it is recommended that no retrospective action that would impact upon the existing workforce be taken to alter existing approvals in Queensland.

However, the panel recommends the Queensland Government continues to explore all policy or legislative options in relation to existing 100% FIFO resource projects located near a resource town or regional community which would require operational workers to be given a choice of where to live.

The panel also recommends the Queensland Government urge the resource sector, in the interest of maintaining a strong social licence to operate, to source suitable operational replacement workers, whether directly employed or employed by contractors, where available, from resource communities or nearby regional communities.

5.0 Workforce characteristics and trends

The review panel met with most major resource companies in targeted consultation. Information has been provided by several major resource companies on the operational workforce composition of their resource activities in Queensland. As data has not been provided in a uniform format, it is difficult to present quantitative trends across operations.

5.1 Profile of the Queensland resource industry operational workforce

5.1.1 Current use of non-resident workforces

Non-resident workforces have been used in the Queensland's resource regions throughout the growth in the resources sector.

However, the data provided suggests there has been an increasing proportion of non-residential workers used for operational resource activities. Part of this trend is the increasing use of contractors and also the increased use of casual labour hire in some operations.

A particular difficulty the panel has experienced in evaluating the trends in workforce composition, is that data has not been consistently provided about the recruitment activity of contract and casual labour hire companies. This segment of the workforce is significant and the absence of current data makes an assessment of operational workforce trends difficult.

Based on a limited sample size of information received by the panel from resource companies as well as Queensland Government Statistician's Office 2011 data, it is estimated that for these companies, around 50% of operational workers are resident with the remainder of the workforce non-resident. There are also several operations at which the majority of the operating workforce is non-resident. Further, there are instances where an entire workforce is non-resident, as a condition of their employment.

At some resource activities, workforces are employed 'at the mine gate', with employees choosing whether to live locally or at another location. The non-resident component of the workforce is housed within accommodation villages for the duration of their shifts at the company's expense. Often the resource companies provided buses from nearby regional communities for their non-resident workforce.

Several resource activities have an entirely non-resident workforce sourced from designated source communities. The primary reasons cited for this type of workforce plan include the lack of suitably qualified personnel living locally at the commencement of the activity, increased workforce diversity, productivity and retention rates. These operations have been the subject of controversy as they are seen by many

stakeholders as removing the choice of workers to live locally and excluding people in resource communities and some regional communities from competing for employment.

Through its *Strong and Sustainable Resource Communities* election commitment policy, the Queensland Government committed to introducing choice for workers to live in the resource communities near to where they work.

The panel's recommendations incorporate the principle that operational resource workers are able to choose their permanent place of residence. The recommendations are also based on the premise that resource communities and nearby regional communities should receive a preferential economic benefit from the resource activities.

5.1.2 Regional trends in non-resident workforces

The trends highlighted in the Queensland Government Statistician's reports (outlined below) show significant fluctuation in the use of non-resident construction and operational workforces over the last decade.

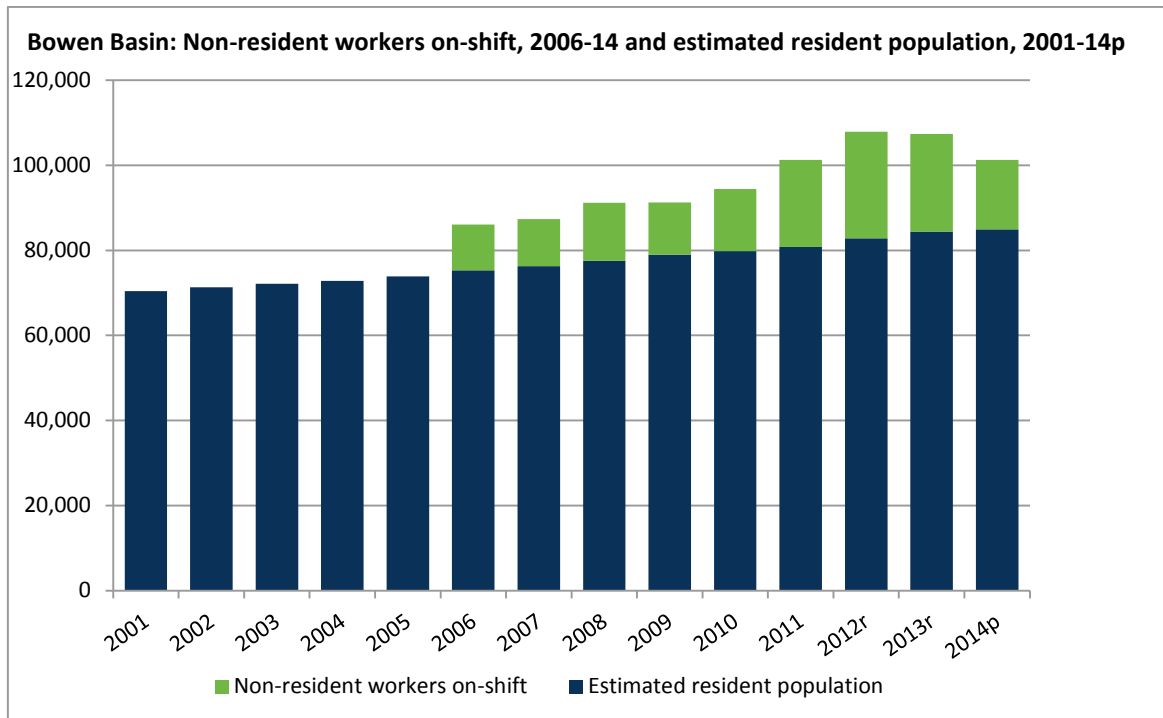
Bowen Basin

The number of non-resident workers on shift in the Bowen Basin rose from 10 765 in 2006 at the commencement of reporting, to a peak of 25 035 in June 2012. This number has declined significantly due to transition from the construction phase to operations at many mine sites in the region, the conclusion of disaster recovery activities, as well as the scaling down or closure of some operations due to falling commodity prices. In June 2014 the number fell to 16 355 and, based on previous projections, is expected to fall further to 14 230 in 2015.

During the last two years in the Bowen Basin, while the on-shift, non-resident workforce has fallen by 8680, the resident population has risen by 2073 (2.5%) as at June 2014. This is consistent with the finding of the Productivity Commission that 'FIFO has (also) moderated the boom-bust cycle that mining towns might otherwise experience if all employees had to be residential'.⁹

⁹ Productivity Commission, *Geographic Labour Mobility*, April 2014.

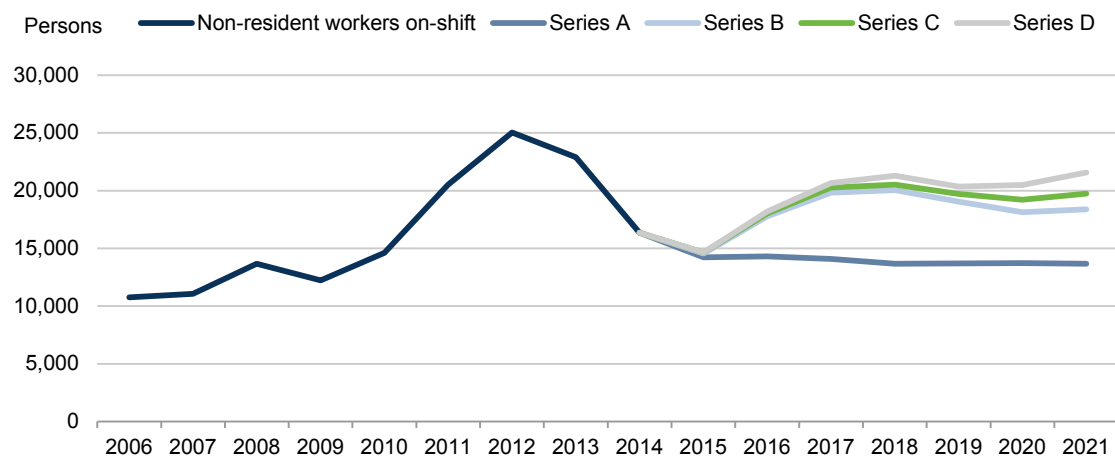
Figure 13: Full-time equivalent (FTE) population by components, Bowen Basin



Source: Sources: Australian Bureau of Statistics 3218.0, *Regional Population Growth, Australia, 2013–14*; Queensland Government Statistician’s Office estimates 2006 to 2014. Note: Data for non-resident workers on-shift are not available prior to 2006. (r) – revised, (p) – preliminary.

Projections in non-resident population for the Bowen Basin vary between 13 670 and 18 380 by 2021. Taking into account only existing resource operations and projects in the Bowen Basin that have passed final investment decision, it is estimated that non-resident population on-shift in the region will be at 13 670 persons by 2021 (similar to the 2008 population).

Figure 14: Past and projected non-resident workers on shift, Bowen Basin

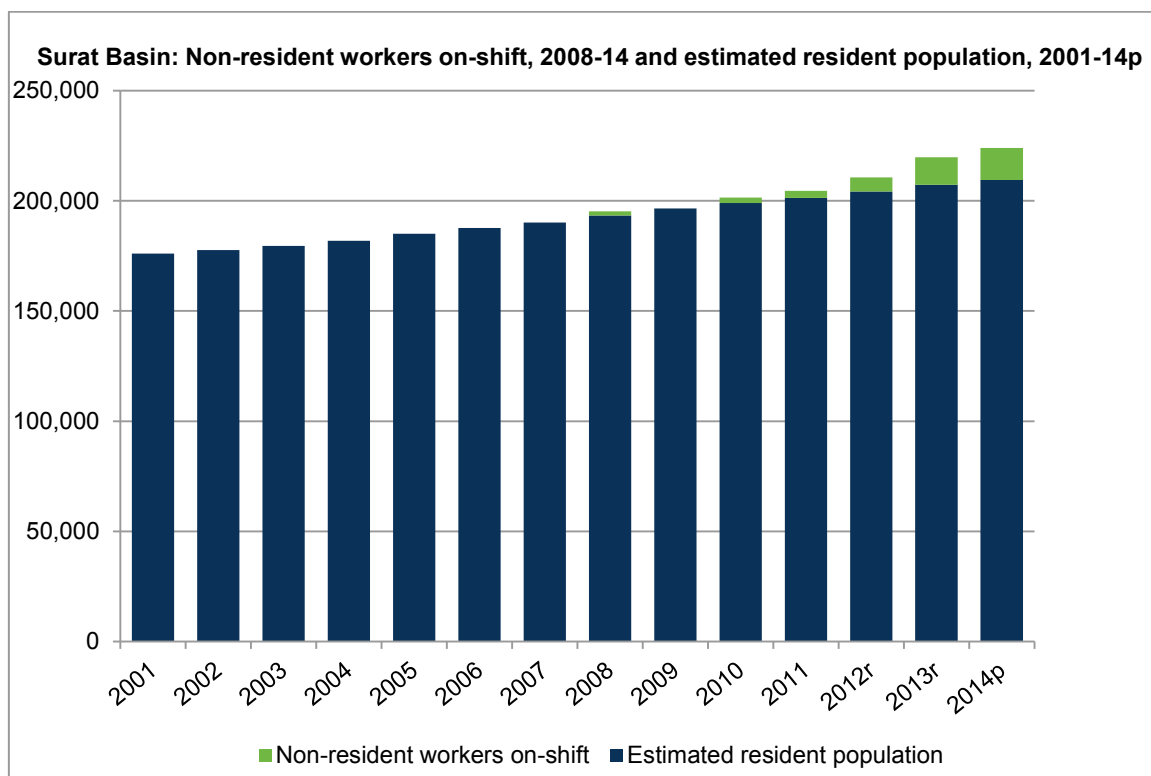


Source: Queensland Government Statistician’s Office estimates, 2006 to 2014; Queensland Government Statistician’s Office projections, 2015 to 2021.

Surat Basin

The Surat Basin on-shift, non-resident workforce population estimates peaked in June 2014 at 14 490 (having more than quadrupled since 2011).¹⁰ This was due to the intense construction activity across three CSG projects and the associated pipelines linking the Surat Basin with port facilities at Gladstone.

Figure 15: Full-time equivalent (FTE) population by components, Surat Basin



Sources: Australian Bureau of Statistics 3218.0, *Regional Population Growth, Australia, 2013–14*; Queensland Government Statistician's Office estimates 2008 to 2014.
Notes: Data for non-resident workers on-shift are not available prior to 2008. Non-resident workforce data shown for 2008 do not include Toowoomba (R). (r) – revised, (p) – preliminary.

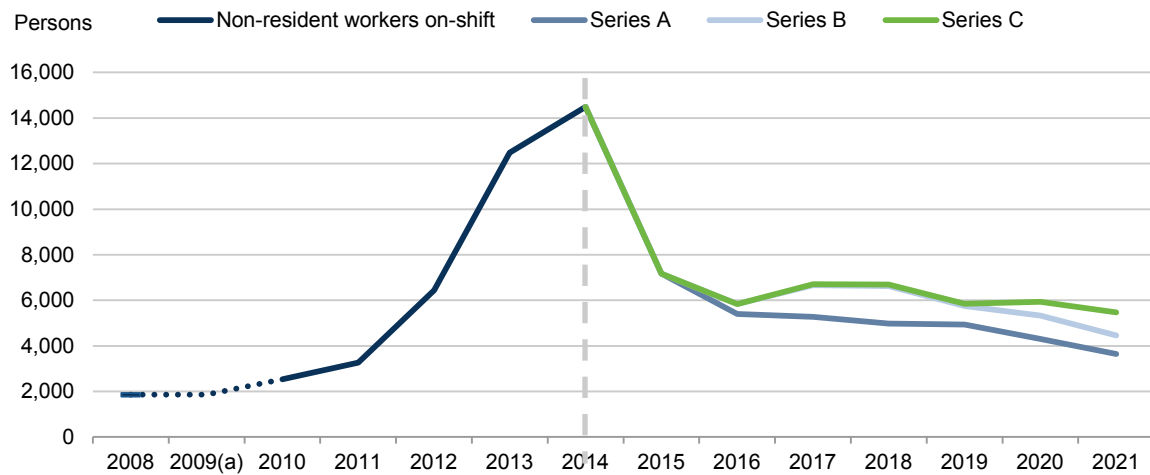
Projections show a decrease in the region's non-resident workforce to between 3650 to 5470 persons by 2021.¹¹ The extent of the change will depend on the approval and commencement of other gas projects in the region, most notably:

- the Surat Gas project component of the Arrow Energy LNG project, which has been approved but is awaiting final investment decision
- the Santos GLNG Gas Field Development project, which lodged an Environmental Impact Statement with the Queensland Government in 2014, is currently being assessed and is yet to receive approval or final investment decision.

¹⁰ Queensland Government Statistician's Office, *Surat Basin non-resident population projections, 2015–2021*, 2015, <http://www.qgso.qld.gov.au/products/reports/surat-basin-pop-report/index.php>

¹¹ Queensland Government Statistician's Office, *Surat Basin non-resident population projections, 2015–2021*, 2015.

Figure 16: Past and projected non-resident workers on shift, Surat Basin



Source: Queensland Government Statistician’s Office estimates, 2006 to 2014; Queensland Government Statistician’s Office projections, 2015 to 2021.

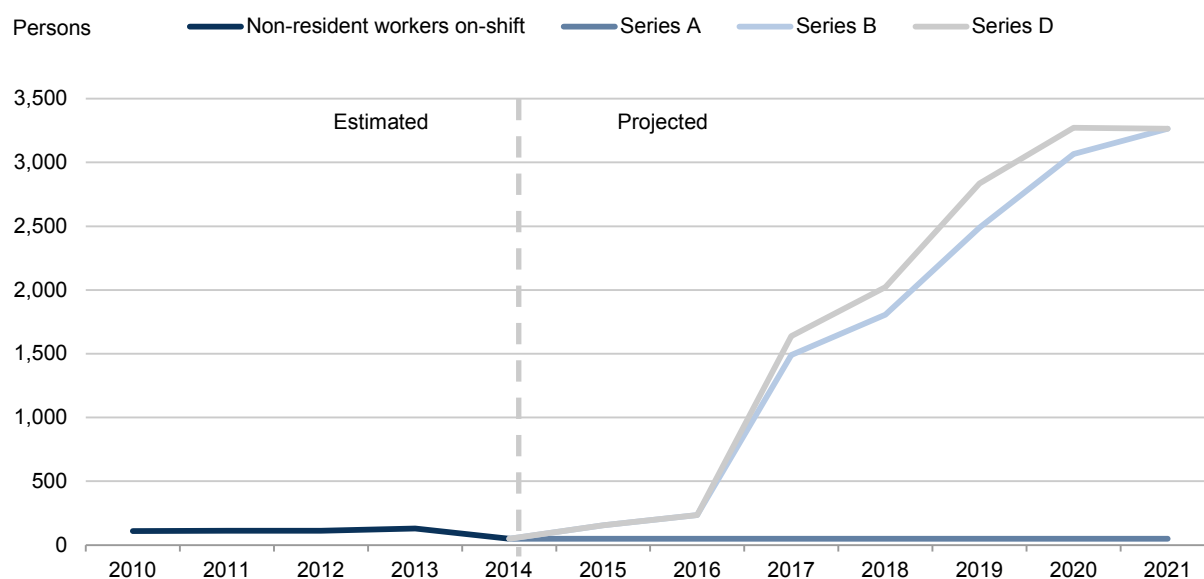
Galilee Basin

Whilst there is currently no coal mining activity in the Galilee Basin, several large mines and associated rail projects are well advanced within the Barcaldine local government area. Components of these projects also occur in the Isaac and Whitsunday local government areas, and are covered by the projections for the Bowen Basin.

In 2014 the non-resident workforce was estimated at 50 people in the Barcaldine local government area. Taking into account workforce requirements for projects that have been approved through Environmental Impact Statement processes but are yet to reach a final investment decision, Queensland Government Statistician’s Office projections are that the non-resident workforce in Barcaldine by 2021 is estimated to be 3260.¹²

¹² Queensland Government Statistician’s Office, *Bowen and Galilee Basins non-resident population projections, 2015–2021*, 2015,

Figure 17: Past and projected non-resident workers on shift, Barcaldine



Source: Queensland Government Statistician's Office estimates, 2010 to 2014; Queensland Government Statistician's Office projections 2015 to 2021.

North West minerals region

The panel has faced difficulties in obtaining current data on the non-resident workforce numbers in the North-West region. The most recent credible data were collected in 2007. There is a clear need for more comprehensive data collection on the mining industry workforce in this region.

Figure 18: Full-time equivalent population by components, Local Government Area North West region, 2007

LGA	Estimated resident population at 30 June 2007 (a)	Non-resident workers at 30 September 2007		
		Living in towns in non-private accommodation (b)	Mining workers living in on-site accommodation (c)	Total non-resident workers on-shift*
Mount Isa (C)	20,711	654	848	1,502
Cloncurry (S)	3,250	64	830	894
McKinlay (S)	963	0	723	723
Burke (S)	532	0	570	570
Total	25,456	718	2,971	3,689

Sources: (a) Australian Bureau of Statistics 3218.0 *Regional Population Growth, Australia* (released 31 March 2015) (b) and (c) Queensland Government Statistician's Office, unpublished.

*Note: The number of non-resident workers in Mount Isa (C) has been adjusted for double count of workers in (b) and (c).

Workforces at existing operations near Mt Isa and Cloncurry have traditionally had predominantly resident workforces. During consultations the panel was advised by resource companies that there has been a trend towards a higher proportion of non-resident workers at new projects.

5.1.3 Workforce diversity

The recent unprecedented growth in the resources sector has seen increased employment opportunities across many parts of the community which have previously been under-represented in the sector.

Many resource companies reported that the use of non-resident workforces had led to a significant increase in workforce diversity. Female participation rates were as high as 25% of a mine's workforce. This compares to a national average for women working in the mining sector of 17.4% in the 2011 Census of Population and Housing, including head office staff.¹³

Aboriginal and Torres Strait Islander participation has increased significantly over recent years, with data suggesting that 63% of Indigenous workers in the sector are non-resident workers.¹⁴ Resource companies reported increasing Indigenous participation rates of between 3% and 5%. **Figure 19** shows that the unemployment rates of Indigenous peoples in the Bowen Basin and Surat Basin are significantly lower than the Queensland average.

Figure 19: The employment profile of Indigenous peoples in resource regions compared with Queensland

	Unemployment rate (%)	Employed by mining (share of total employment, %)	Personal income of \$1,000 or more per week (% of males)	Fully engaged in work, study or training (% of males aged 18 to 24 years)
Bowen Basin	11.9	25.9	35.2	55.8
Surat Basin	13.3	7.8	19.8	40.8
Queensland	18.1	4.0	17.3	39.4

Source: Australian Bureau of Statistics, Census of Population and Housing, 2011, unpublished data (usual residence) and Queensland Treasury estimates.

Indigenous representatives consulted strongly endorsed the use of non-residential employment as it allowed Indigenous participants from the traditional owner group to live on their traditional lands.

The use of non-resident workforces has also seen a rise in the number of new entrants in the sector. One resource company advised that half of the workforce at its operation is new to the resource sector.

¹³ Australian Bureau of Statistics, *Census of Population and Housing, 2011, Basic Community Profile*, Table B43 Industry by Employment by Age by Sex, http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/communityprofile/0?opendocument&navpos=220

¹⁴ Energy Skills Queensland, *Heartbeat for the Mining Industry, 2013 Queensland Workforce Report*, <http://www.energyskillsqld.com.au/esq/2013-heartbeat-for-the-mining-industry-workforce-report/>

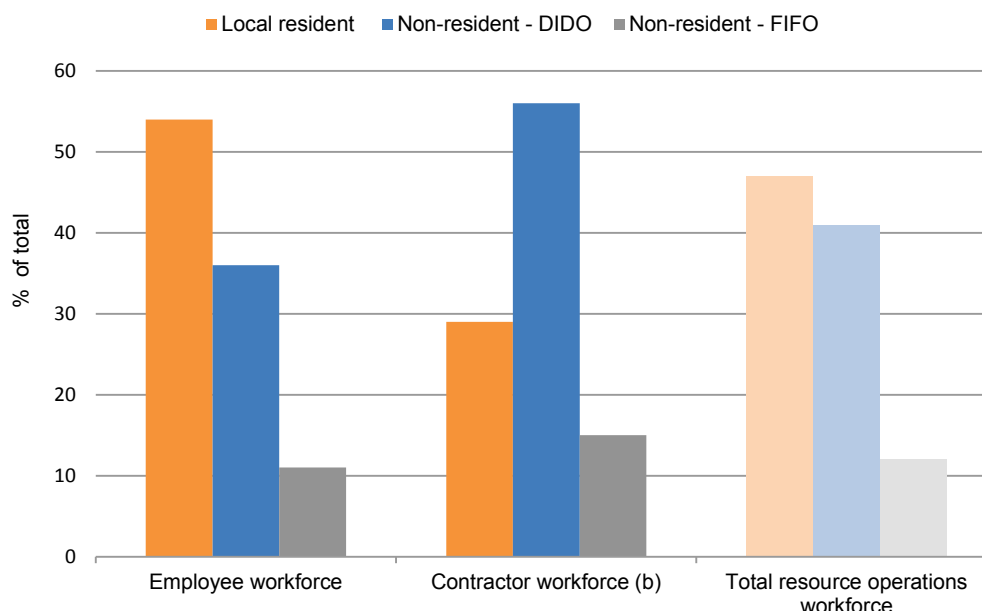
5.1.4 Direct versus contract and casual employees

Targeted consultation undertaken by the panel has indicated a trend in some operations towards the increasing use of contract workforces. This has implications for the number of non-resident workers as contractors are far more likely to live outside of the region.

However this trend is not universal across the resource industry, with some operations trending towards direct hire.

Data collected by the Queensland Government Statistician's Office in 2011, highlighted that the direct employee operational workforce of the Bowen Basin had an appreciably higher proportion of resident workers (54%) than the contractor workforce (29%), see **Figure 20** below. Within the non-residential component of the contractor workforce, 56% drive-in-drive-out and 15% fly-in-fly-out.

Figure 20: Resource operational employees and contractors by residency status^(a), Bowen Basin, June 2011



Source: Queensland Government Statistician's Office, *Bowen and Galilee Basin Population Report*, 2011.

- (a) These data describe persons who are employees or contractors of existing resource operations, and who are engaged in production, in-house maintenance and ad hoc construction. They do not include project workforces, incidental contractors or persons not directly engaged in mining operations. Residency status is based on region of usual residence relative to place of work. FIFO/DIDO groupings represent the most likely means of travelling between home and work according to distance and known transport services, rather than individual arrangements.
- (b) Place of residence data for contractors are based on an incomplete sample received from survey. Responses where place of residence was not provided are not included in total shown above.

The panel was also advised of an increased use of casual labour hire by contractors for operational workforces.

Although data is not available regarding the exact rate at which casual labour hire is being used, advice provided to the panel suggests that this is a growing trend, used to reduce the operational costs of the resource activity.

5.1.5 Summary

It is the longer term operational workforces and the economic benefits they provide that underpin the sustainability of the resource communities.

Given the trends identified above, the panel recommends that the government require resource activity proponents to develop an operational workforce plan, to the satisfaction of the government, that demonstrates a robust and sustainable commitment to hiring and training personnel from resource communities, where available, followed by nearby regional communities and then from within Queensland and beyond.

For example, for a project within the Isaac local government area, the workforce plan would demonstrate a commitment to providing preferential opportunity to employment and training according to geographic proximity outlined in **Figure 21**.

Recommendation 1B: Workforce plan

That the Queensland Government requires resource activity proponents to develop a workforce plan to the satisfaction of the government that:

- demonstrates a robust and sustainable commitment to hiring and training personnel from resource communities first, followed by nearby regional communities and then from within the state of Queensland and beyond
- incorporates a timely review process to ensure relevance and adaptability of the workforce plan during the life of the resource activity.

The plan is to contain employment targets for Indigenous, female, apprentice and disabled persons and for local postcode employees after assessing the available employment pool.

The plan must include all operational employees whether employed directly, by contractors or by other recruitment arrangements

No future resource activity, within safe travelling distance of existing resource communities or regional communities, should be conditioned to allow 100% FIFO.

The panel recommends that monitoring of approval conditions should also address:

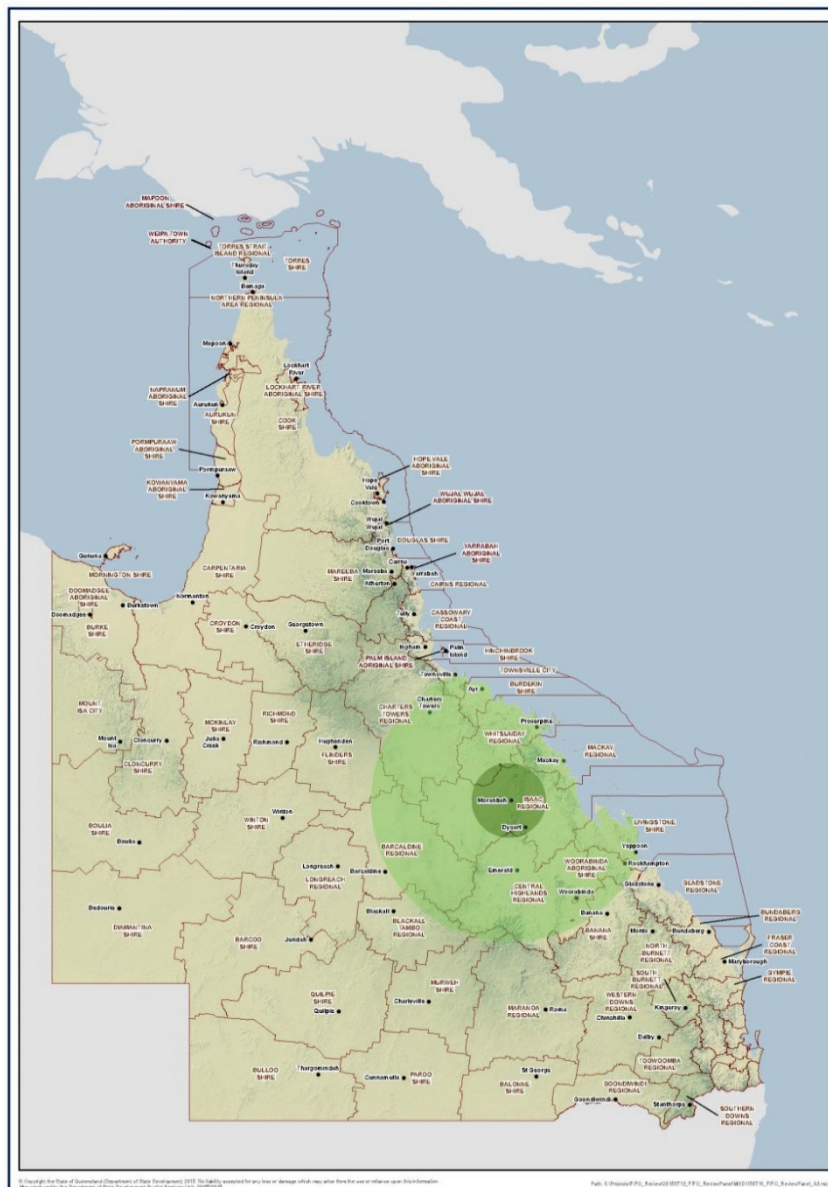
Recommendation 2B: Workforce plan

- Number of employees and trainees by distance from the resource activity determined by an agreed designation relevant to the location of the activity (e.g. postcode of principal place of residence).
- Number of employees and trainees who are Indigenous, female, have a disability.

Leaseholders are to obtain reporting from all contractors engaged to undertake operational resource activities.

That leaseholders be required to provide an independent audit of the approved workforce plans at agreed periodic intervals (e.g. every five years).

Figure 21: Employment preference according to geographic proximity to the site of operation



6.0 Economic costs and benefits of predominantly non-resident operational workforces

The use of non-resident operational workforces can have a range of impacts across communities, individuals, businesses and local government.

6.1 Resource communities

The use of non-resident workforces can have both economic costs and benefits for resource communities. In circumstances where there is a limited local workforce, the recruitment of workers from other regions can provide opportunities for local businesses and service providers. However, if people are commuting rather than living locally, there are impacts on the resource community from lowered employment and related economic activity and growth.

The use of non-resident workforces, where there is an available local workforce, has a significant economic cost to resource communities as lost employment and wages carry over into lost expenditure with local businesses and service providers. Several studies have been commissioned to assess the economic impact of non-resident workforces on resource communities and nearby regional communities.

A study commissioned by the Construction, Forestry, Mining and Energy Union, estimated the impact of a 100% fly-in-fly-out policy on Mackay and Moranbah.¹⁵ After assessing the capacity of the labour market in both regions at the time (2014), a scenario was modelled whereby the ratio of non-resident workforces was scaled down from 100% to 70%. The difference between these modelled scenarios to Moranbah and Mackay was between \$11.1 million and \$14.9 million annually in direct economic benefit from reducing the non-resident workforce numbers.¹⁶

A further economic analysis has been undertaken for the Isaac Regional Council by Lawrence Consulting. The analysis estimated the difference in spending patterns between resident and commuting workforces in the resources sector.¹⁷

¹⁵ Construction, Forestry, Mining and Energy Union, *The impact of Fly-In-Fly-Out employment policy on Mackay and Moranbah, QLD*, November 2014, prepared by SGS Economics and Planning, [http://cfmeu.com.au/sites/cfmeu.com.au/files/downloads/\[field_download_state-raw\]/\[field_download_type-raw\]/sgsimpactfif0.pdf](http://cfmeu.com.au/sites/cfmeu.com.au/files/downloads/[field_download_state-raw]/[field_download_type-raw]/sgsimpactfif0.pdf)

¹⁶ Based on an assumption that non-resident expenditure accounts for one-sixth of that of a resident worker.

¹⁷ Isaac Regional Council, *Regional Spending Impacts of Resource Sector Workforce*, prepared by Lawrence Consulting, unpublished, June 2015.

Based on separate assumptions,¹⁸ the study found that the benefit to the Isaac local government area from the resident workforce was \$154.3 million in 2013–14. The loss of local expenditure attributed to the commuting workforce over the same time period was estimated to be \$342.4 million.¹⁹

Given the difference between the two studies and the regional community interest in this issue, it is recommended that the Queensland Government seek to determine accurately the impact of operational non-resident operational workforces on the resource regions through either validating the existing studies or undertaking further economic analysis.

Recommendation 6: Economic impact of non-resident workforce trends

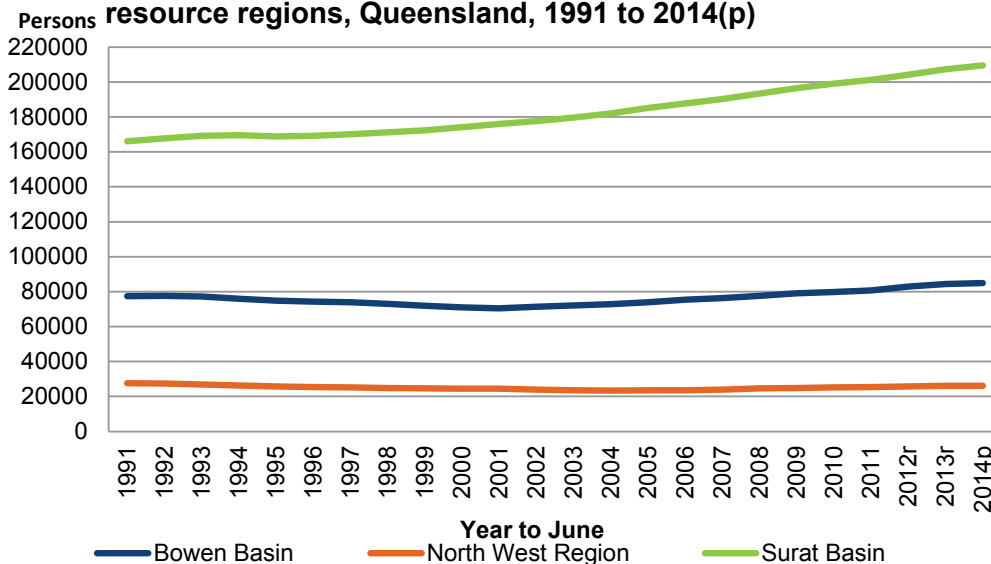
That the Queensland Government:

- review existing studies on the economic impact of non-resident operational workforces on resource and nearby regional communities
- undertake any further required work in order to establish a mechanism to accurately assess the impact of non-resident operational workforces.

6.1.1 Population and employment

Resident population numbers were relatively stable or declining in all resource regions during the 1990’s. Both the Bowen Basin and the Surat Basin have experienced continual growth over the past 15 years with significant growth between 2011 and 2014.

Figure 22: Estimated resident population (ERP), resource regions, Queensland, 1991 to 2014(p)



Source: Queensland Government Statistician’s Office, provided for use by the FIFO Review Panel, June 2015.

¹⁸ Resident workers in Isaac local government area are assumed to spend 30% of their salary locally, while commuting workforces spend 9.3% locally and the remainder is spent in the place of permanent residence.

¹⁹ It should be noted that this analysis appears to presume that the entire commuting workforce could be sourced within the Isaac local government area.

Unemployment across all regions is below the Queensland average unemployment rate of 6.5% in March 2015.²⁰

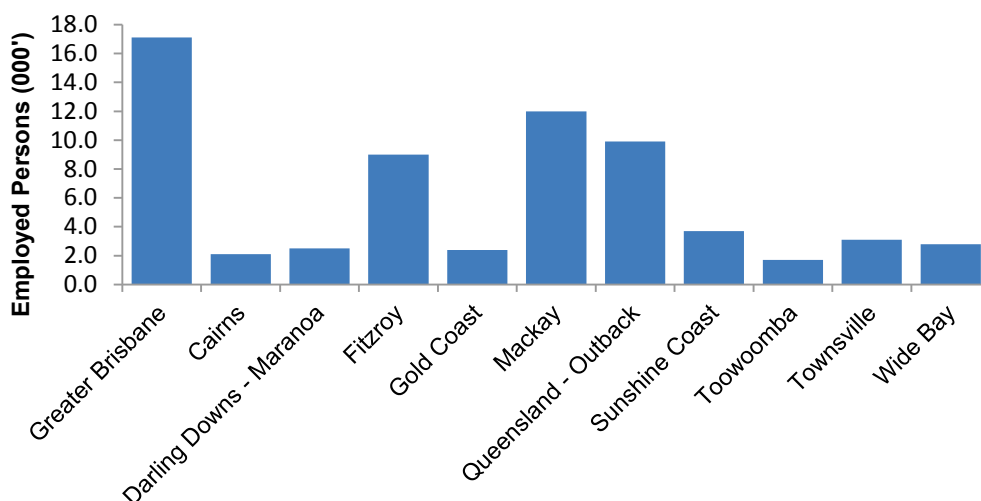
Figure 23: Summary of Queensland resource regions population and unemployment for 2006, 2011 and 2014

Region	Population			Non-Resident, On-Shift Population			Unemployment (Qld 6.5%).		
	2006	2011	2014 (June)	2007	2011	2014 (June)	2006	2011	2015 (March)
Bowen Basin	63,549	68,517	72,290	N/A	20,520	16,360	2.1%	2.2%	3.4%
Surat Basin	41,690	45,786	47,496	N/A	3,270	14,490	3.6%	3.1%	2.9%
North West	23,622	25,421	26,079	3689*	N/A	N/A	3.7%	4.2%	3%

Source: Queensland Government Statistician's Office, Regional Profiles, 2015, * Queensland Government Statistician's Office, unpublished 2007. The geographic regions used for the above measures vary slightly.

Mining employment data by labour force region is provided in **Figure 24**. Greater Brisbane accounts for the largest share which reflects head office operations and the broader service hub in the Brisbane region. The Mackay region (including Whitsunday and Isaac) is the second largest home of mining workers with 12 000 people, 18% of Queensland's total mining labour force.

Figure 24: Mining employment by labour force region

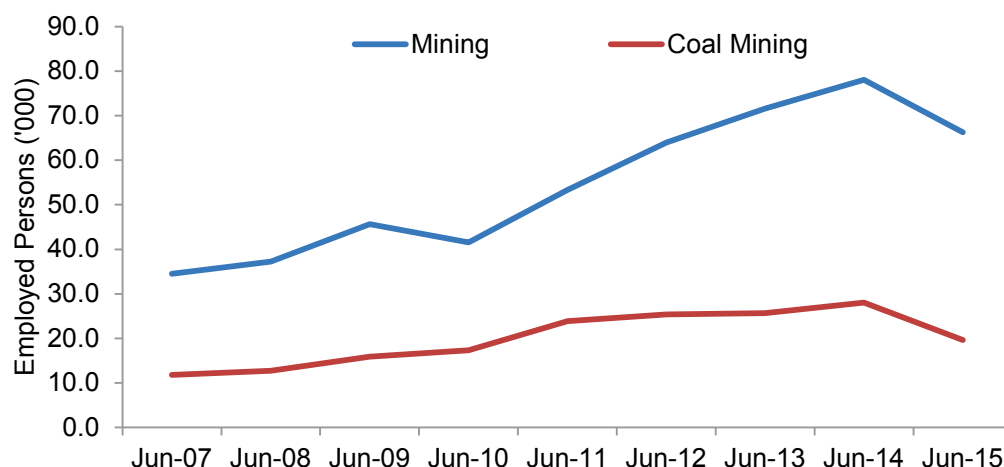


Source: Queensland Government Statistician's Office, Regional labour force data, May 2015.

The number of employed persons in the mining industry in Queensland and coal mining is reported in **Figure 25**. The reduction in coal mining employment over the year to June 2015 accounted for a large part of the overall fall in mining employment over the same period.

²⁰ Queensland Government Statistician's Office, March 2015.

Figure 25: Employed persons in mining and coal mining, Queensland, June 2007 to June 2015 (four quarter year average)



Source: Australian Bureau of Statistics 6291.0.55.003 *Labour Force, Australia*, detailed quarterly release
Notes: May is the reference month of the June quarter; employment data is four quarter averaged.

6.1.2 Housing

The period between 2008 and 2014, saw unprecedented investment in the resources industry in Queensland. This growth and the subsequent return to more normal conditions, have had a significant impact on housing markets in resource regions. The table below outlines the sizeable fluctuation in house prices experienced throughout the last decade. The use of non-resident workforces located in worker accommodation villages, can help to relieve pressure on rent and house prices in resource communities during the height of demand, and assist in moderating the peaks and troughs from the commodity cycle.

Figure 26: Median house prices across resource regions

Local government area		\$Median house price (detached dwelling, December quarters)		
		2006	2011 (% change from 2006)	2014 (% change from 2011)
Bowen Basin	Banana	\$225,000	\$270,000 (+20%)	\$285,000 (+6%)
	Central Highlands	\$295,000	\$380,000 (+29%)	\$317,000 (-17%)
	Isaac	\$320,000	\$500,000 (+56%)	\$240,000 (-52%)
	Whitsunday	\$320,000	\$340,000 (+6%)	\$398,000 (+17%)
Surat Basin	Maranoa	\$170,000	\$267,500 (+57%)	\$290,000 (+8%)
	Toowoomba	\$246,000	\$296,000 (+20%)	\$347,500 (+17%)
	Western Downs	\$188,000	\$287,000 (+53%)	\$270,000 (-6%)
NW	Cloncurry	\$160,000	\$195,000 (+22%)	\$195,000 (0%)
	Mount Isa	\$220,000	\$349,000 (+59%)	\$358,000 (+3%)

Source: Real Estate Institute of Queensland

Housing prices are typically a function of supply and demand. However in many of the resource communities, the resource companies are also major landholders. In some cases companies have been conditioned to provide additional housing stock, potentially distorting the normal supply and demand forces in the real estate market.

Limited and costly housing creates barriers to attracting and retaining workers for resource and other employment opportunities. High house prices and rent may encourage residents to relocate to other regional communities that are more affordable.

Housing price fluctuations can be managed by a balance of:

- a) the use of non-resident worker accommodation villages
- b) well-planned residential development, with adequate land release, zoning and timely approvals, and competitive residential development charges.

Improved data collection and reporting, recommended in other sections of this report, will assist local government to plan for future growth in the resources sector, in partnership with industry, other governments and communities.

6.1.3 Local businesses

Local (and regional) businesses in resource regions and regional communities experience both positive and negative impacts from resource activities.

The operational phase of a resource project can bring significant long-term business opportunities, especially where there is a strong commitment by the resource company to procurement activity within the resource region and nearby regional communities.

However, the establishment of a significant resource activity can drain the pool of available labour for small regional businesses, as higher paid resource activity employment opportunities arise and as housing shortages and high rents force lower paid workers from the resource regions. The move by many resource companies to centralised procurement can also have a detrimental impact on smaller regional businesses that have to compete with Tier 1 suppliers. These factors can impact on the business's ability to develop the capability and capacity to meet the procurement needs of the resource activity.

6.1.4 Resource activity procurement trends

The efforts of resource companies to procure from small businesses within resource and regional communities was a major issue raised with the panel during stakeholder consultations. There are no requirements on resource companies to procure locally, though many have programs in place to provide opportunity for local businesses to compete for supply contracts.

Over five years, the Queensland Resources Council tasked its members to submit total expenditure data for goods and services (where possible separating operational and capital expenditure), salaries and community contributions by postcode. In 2013–14, 46 companies procured \$42.5 billion in goods and services (both operational and capital expenditure).

This included:

- \$29 billion or 68% purchased from vendors located in Queensland. This compares to \$30.8 billion purchased in 2012–13, \$30.9 billion achieved in 2011–12, \$20.8 billion achieved in 2010–11 and \$18.8 billion achieved in 2009–10.
- \$1.9 billion or 4% procured from vendors located outside of Australia and New Zealand. This compares to 5% in 2012-13.
- An additional \$2.2 billion was procured from vendors outside of Queensland from an unassigned location due to insufficient detail in the data provided.²¹

Queensland Resources and Energy Sector Code of Practice for Local Content

The *Queensland Resources and Energy Sector Code of Practice for Local Content (2013)* is an industry led and owned initiative. Under the code, Queensland operating resources and energy companies are encouraged to adopt the principle of ‘full, fair and reasonable’ opportunity for capable local industry to participate in projects. The delivery framework seeks companies to develop a local content strategy, utilise complementary capacity and capability-building programs and monitor and evaluate local content strategy effectiveness. Compliance with the code is voluntary but is strongly encouraged by the Queensland Resources Council. As at December 2014, seven major resource companies had voluntarily adopted the code. Another nine companies also voluntarily completed 2014 code industry reports.

BMA Local Buying Program

The BMA Local Buying Program²² is delivered in partnership between BMA and C-Res (a cost-neutral entity specifically established to deliver this program). It is a targeted program providing opportunities for small businesses with less than 25 full-time employees to competitively supply goods and services to BMA/BMC.

At the end of March 2015, 641 local businesses were approved to participate in the program, 383 in the Bowen Basin and 258 in the Mackay region. A total of 4294 work opportunities have been made available to local businesses with 3604 approved work packages. The total approved spend program to March 2015 is approximately \$46 million.

In addition to providing supply opportunities, the BMA Local Buying Program, through the establishment of a Local Buying Community Foundation, delivers community and economic development programs designed to enhance and support local business capability and capacity. The Local Buying Community Foundation aims to enhance the economic viability of the wider community and region through programs targeting new business, existing business growth, employment programs and economic benchmarking.
<https://c-res.com.au/About>

Source: BMA Local Buying Program End of Quarter Report, 31 March 2015

²¹ Queensland Resources Council, *Queensland Resources and Energy Sector Code of Practice for Local Content (2013)–Code Effectiveness Report 2014*, 2014.

https://www.qrc.org.au/dbase_upl/2014%20Code%20Effectiveness%20Report.pdf

²² BHP Billiton Mitsubishi Alliance, BMA Local Buying Program, www.localbuying.com.au

Other issues

The Queensland Government also offers a range of programs to ensure full, fair and reasonable opportunities are available to small and medium sized businesses. The Industry Capability Network also assists business in developing the capability to meet the contracting and procurement requirements of service providers, such as resource companies, so they may compete for tenders and other business opportunities.

During the stakeholder consultation process, the panel heard that whilst a number of resource companies and their third party contractors have strategies for local procurement, much of this is voluntary and not routinely or fully reported to the community.

A number of stakeholders noted the lack of comprehensive data available on the efforts being made by resource companies and their third party contractors to procure locally.

The lack of consistency and transparency in reporting of resource company efforts to procure from local suppliers is a key issue to be addressed when looking to encourage growth and sustainability of resource and regional communities.

Without this information, local businesses are unable to maximise the benefits they can obtain from the operation of a major resource project in proximity to a resource community or nearby regional community.

Overall, there is no clear and concise evidence that despite all of the above programs that the procurement practices of operational activities are maximizing sustainable growth opportunities for regional businesses.

Recommendation 1C: Procurement plan

That the Queensland Government requires resource activity proponents to develop an operational activity procurement plan to the satisfaction of government. The procurement plan should conform with an industry code of practice for local content, e.g. *Queensland Resources and Energy Sector Code of Practice for Local Content (2013)*.

The plan is to incorporate procurement activities undertaken by contractors and sub-contractors engaged to undertake operational resource activities (including worker accommodation) on behalf of the resource activity owner.

The plan should demonstrate a robust and sustainable commitment to:

- the assessment and development of resource communities and nearby regional supplier capacity and capability
- procurement from resource community and nearby regional community suppliers
- consideration of sustainable contract duration and payment terms taking into account the regional supplier capability and capacity
- a timely review process to ensure relevance and adaptability of the procurement plan during the life of the resource activity.

The panel recommends that monitoring of approval conditions should also address:

Recommendation 2C: Procurement plan

- The dollar amount and proportion of procurement sourced from resource communities and nearby regional communities.
- The activities undertaken by the operational activity to help build supplier capability and capacity.
- Advice on any preferential supplier terms and conditions including preferential payment terms.
- Reporting from all contractors engaged to undertake operational resource activities.
- The results of an independent audit of the approved workforce plans undertaken at agreed periodic intervals (e.g. every five years).

Where the proponent engages services of a third party provider to accommodate a non-resident workforce, reporting under the conditions of the procurement plan is voluntary. However, the data can be incorporated into the leaseholder's procurement plan to meet their obligations under the plan.

6.1.5 Local government

Growth in the resources sector has delivered both economic benefits and costs for local government.

The establishment of a resource activity in the region can mean major investment in the road, rail, water and power networks. Resource companies have in the past, either voluntarily or through conditions, made significant investment in these infrastructure networks in resource communities. For example, BHP Billiton Mitsubishi Alliance has contributed \$100 million for water, road, and airport maintenance in the Bowen Basin over recent years. Indeed, many councils acknowledged the substantial investment resource companies have made to their communities in infrastructure improvements, community facilities and health services.

The legacy of economic infrastructure can support continued economic growth in a region. Conversely, pressure on existing infrastructure from growth in the resources sector can increase costs for other industries competing for access to markets through rail and road networks. Also local councils expressed concern with respect to the increased operational and maintenance cost burden of upgraded essential infrastructure on their existing ratepayers. The increasing use of non-resident operational workforces impacts on infrastructure in resource communities. The accommodation of short term workforces in purpose built accommodation villages can minimise public expenditure on unnecessary infrastructure provision. However if there is a shift from a permanent resident workforce to a largely non-resident workforce this can reduce the economic viability of local infrastructure and reduce the opportunities for economic growth.

Local government funding

The Local Government Association of Queensland conducted a survey of its members in 2010 on the impact of non-resident workforces on local government and their ability to provide services.²³

The study identified that as a direct result of increased resource activity within the local government area, councils who responded estimated an increase in capital costs of 3% to 21% of their total council budget (an average of a 7% increase across the eight councils in this sample). This increase was attributed mainly to infrastructure such as roads, water and sewage. Councils were concerned not just with the initial capital costs but the ongoing recurrent costs to maintain these services.

Based on this study and consultation with affected councils, the panel considers that the increased rates generated for councils in resource regions may not be adequate to offset the associated infrastructure and delivery of services generated as a result of resource activity.

During consultation, a number of councils noted the pressure non-resident workforces were putting on their existing health services and that there did not appear to be an appropriate allocation of funding to meet this demand.

The panel understands that the Queensland Local Government Grants Commission makes recommendations to government on local government funding. There is a funding methodology which includes relevant factors such as demography, scale and location. Prior to 2011, the Queensland Local Government Grants Commission included the non-resident service expenditure as an adjustor in making grant recommendations. The non-resident service expenditure:

...reflects the increase in costs faced by local government in providing services and regularly used by non-residents. This is determined by comparing the number of people working in a local government area with the number of employed people living in the area.²⁴

This was removed in 2011 as '...the Commission considered that this impact on expenditure varies significantly across the state and to a large extent is no longer a factor given the new local government structure'.²⁵

The panel considers that the impacts of a non-resident workforce place a strain on the ability of local government to deliver goods and services and the increased resource activity may not offset this impact. The panel considers that appropriately funding local government to offset the impact of non-resident requires closer consideration in accordance with the recommendation below.

²³ Local Government Association of Queensland, *Impacts of Fly-In, Fly-out/Drive-In, Drive-out work practices on local government*, 2010, http://www.ancelg.org.au/system/files/publication-documents/1336624408_ACELG_Scoping_Study_FIFO_May_2012.pdf.

²⁴ Queensland Local Government Grants Commission *Methodology Review – General purpose grant and financial assistance grant*, 2011, <http://www qlggc.qld.gov.au/docs/methodology-review-2011-09.pdf>

²⁵ Queensland Local Government Grants Commission *Methodology Review – General purpose grant and financial assistance grant*, 2011, <http://www qlggc.qld.gov.au/docs/methodology-review-2011-09.pdf>

Recommendation 7: Queensland Local Government Grants Commission

That government:

- consider the impacts of an operational non-resident workforce on the ability of a local government to deliver services
- consider reinstating the cost methodology of non-resident service expenditure, or any other appropriate measures, when the Queensland Local Government Grants Commission makes recommendations about grant funds.

Long-term economic planning

The panel noted the varying levels of strategic economic planning undertaken by resource community and regional community councils.

Some councils had secured significant contributions from government and resource companies as part of major project approvals by:

- a) preparing long-term economic strategies
- b) gaining an understanding of cumulative impacts from resource activities
- c) developing a list of infrastructure priorities based on their long-term economic strategies
- d) regularly reviewing the strategic plan and its priorities to ensure they reflect the latest information and forecasts.

These strategic plans and infrastructure priorities were developed by:

- a) undertaking assessment of the economic and social impact of existing and proposed projects on the community
- b) consulting with the community about priorities
- c) establishing and regularly reviewing the prioritised list of economic and social infrastructure.

A number of councils stated they were frustrated by a perceived lack of assistance and guidance available to them from the Queensland Government in their dealings with resource companies, at the project planning and approval stages and then throughout the operational life of the mine.

The panel suggests the Queensland Government play a role in facilitating long-term economic strategies and infrastructure priorities for all affected councils. The goal should be that all resource region and source community councils have similar levels of preparedness to maximise the benefit from future economic opportunities, planned for their communities.

Recommendation 8: Empowering councils

To attract and provide genuine choice for workers and their families to live in resource communities, a continued investment in economic and social/community infrastructure is required.

To achieve this, the panel recommends the Queensland Government encourage local councils located within resource regions to develop or modify long-term sustainable economic strategies complemented by social infrastructure strategic plans. The purpose of these plans is to assist councils assess the cumulative impact of current and projected activities and the economic and social/community infrastructure required as a result of those activities.

That state government provide planning advice to resource region local councils during the development of the strategic plans.

That at the time of project approval of a new resource activity, the Queensland Government gives consideration to funding the local council to deliver infrastructure priorities identified in the strategic plans.

6.2 Nearby regional communities and source communities

Many communities across Queensland have benefited from the heightened resource activity, directly through full-time employment and the supply of goods and services and indirectly through flow-on expenditure effects and greater demand for services in transportation, tourism, accommodation and retail. The training and skills development for non-resident workforces also facilitates labour mobility as the skills gained can be transferable to other industries and regions.

Identified below are the prominent nearby regional communities and source communities supplying workers to the resource sector.

Population levels in all identified regions have grown between 2006 and 2014. The latest unemployment figures (March quarter 2015) show unemployment in the Gold Coast region dropping but all other areas experiencing higher unemployment.

Gladstone is continuing to benefit from the unprecedented growth in both CSG and coal exports, with unemployment remaining lower than in 2006.

The global financial crisis had a significant impact on unemployment rates in these regions, making for a readily available workforce to service increased mining activity across Queensland and in the Pilbara.

Figure 27: Regional population and unemployment profiles 2006–2015

LGA	Population			Unemployment (Qld: 6.5%)		
	2006	2011	2014	2006	2011	2015 (March)
Mackay	100,752	110,676	123,383	3.9%	3.8%	6.7%
Cairns	136,215	153,875	158,985	4.3%	6.7%	6.9%
Gold Coast	455,595	508,187	546,067	5.2%	7.4%	5.8%
Sunshine Coast	237,680	261,142	282,822	5.7%	7.1%	7.3%
Fraser Coast	87,737	96,688	101,306	8.3%	10.5%	12.2%
Bundaberg	84,816	92,063	94,283	7.9%	9.0%	11%
Rockhampton	74,204	78,939	83,439	5.7%	5.4%	7.4%
Gladstone	52,051	59,461	66,097	5.4%	4.5%	4.7%
Brisbane	987,831	1,089,879	1,146,787	4.0%	5.3%	5.3%
Townsville	159,482	180,114	192,038	4.5%	5.3%	8.1%
Toowoomba	145,992	155,473	161,970	4.5%	4.8%	4.5%

Source: Queensland Government Statistician's Office, Regional Profiles

Flow on effects from non-resident workforces can be seen in other industries located outside of resource towns. Increased aviation activity associated with non-resident workforces not only creates opportunities for pilots and air staff but also improves access to markets for other industries associated with mining.

In addition, areas such as Mackay have worked to encourage specialist mining and support services to locate within their local government boundaries and service the resource regions via non-resident workforce arrangements. Mackay provides highly-valued, skilled workers ranging from expert and specialist trades and services through to entry level employees to the sector.

The last mining boom has left Mackay a different region through the fundamental structural change in the economy.

An estimated 1559 Mackay-based businesses were directly supplying the resources sector in the Bowen Basin in 2013–14. As at June 2014, the resources sector contributed \$2.5 billion in direct expenditure on goods and services, including community contributions, to the Mackay local government area.²⁶

²⁶ Queensland Resources Council, *Economic Impact of the Resources Sector to the Queensland Economy 2013/14*, www.qrc.org.au

Figure 28 below sets out the industry's contribution to the Mackay area over the past five years.

Figure 28: Resource industry contribution to Mackay region 2009–2014*

Direct contributions	2009/10	2010/11	2011/12	2012/13	2013/14
Employment	3,065	3,977	5,400	3,700	4,153
Wages	\$399 million	\$460 million	\$680 million	\$737 million	\$543 million
Goods and services	\$2.1 billion	\$2.6 billion	\$3.8 billion	\$3.0 billion	\$2.5 billion
Spend by commodity	n/a	n/a	n/a	96% coal	92% coal

Source: Queensland Resources Council, *Economic Impact of the Resources Sector to the Queensland Economy 2013/14*, www.qrc.org.au

* The Mackay region includes the statistical division of Mackay, Isaac and Whitsunday.

The decline of resource activity also brings economic downturns in these source regions. Unemployment in the Fraser Coast has been historically higher than other areas but has risen by almost 4% since 2006. Unemployment in Mackay, which has been traditionally below Queensland average, has risen from 3.8% in 2011 to 6.7% in the March quarter of 2015.

6.3 Individuals

Non-resident workforce arrangements provide the opportunity to work in the resource sector while choosing the lifestyle on offer in nearby regional communities and source communities. Prominent factors in the decision of families about where to live can include spousal employment opportunities, education and health care facilities and other lifestyle factors, including their established networks.

Companies reported to the panel that they offer incentives to live locally, including salary increments, annual bonuses and subsidised housing costs. However, evidence provided by several resource companies indicates that these incentives have not been highly effective in facilitating the relocation of workers into the resource regions.

Until July 2015, there was some marginal taxation benefit for individuals who were non-resident workers by way of zonal tax offsets.

Being part of a non-resident workforce can moderate the impacts for an individual of working within a trade-exposed sector in which demand for labour fluctuates. When employment opportunities reduce within the resources sector, there are increased opportunities in urban areas to re-direct their labour to other sectors of the economy. Additional moving costs are also avoided in order to follow employment opportunities.

However, long-distance commuting and extended and frequent periods away from home can put pressure on family relationships and mental health. These effects, while they can have economic impacts, are being considered in detail in the parliamentary inquiry into fly in, fly out and other long distance commuting work practices in regional Queensland.

It is the opinion of the panel that more needs to be done to remove barriers and provide incentives for workers to live in resource and nearby regional communities. Equally, the panel recognises the complex decisions that individuals and their families make when determining where to live. It is the belief of the panel that effective local planning, in partnership with resource companies who are invested in the communities within which they operate, could improve the liveability and social amenity of resource communities regions. Planned and systematic investment in infrastructure and amenity through an empowered local government would see resource communities become even more attractive places to live.

6.4 Resource companies

Resource companies have highlighted the following economic benefits from the ability to choose a non-resident workforce:

- labour market flexibility
- accessing the best available skills
- capacity to respond to changing market conditions
- increased workforce diversity
- increased productivity
- greater control over safety of workers.

Conversely, the panel also heard from some companies that there is considerable benefit in the stability offered by a residential workforce for long-term operations.

Varied levels of information were received from resource companies about the comparative costs of maintaining a resident or non-resident workforce. Based on the information available, the cost of maintaining a non-resident workforce is slightly higher than that of a resident worker.

The cost of a non-resident worker includes:

- travel expenses to and from the site of operations (where provided)
- accommodation and food while on shift
- living away from home allowances.

This cost is seen by companies to be counter balanced by workforce cohesion benefits and productivity improvements, particularly when coupled with a single fixed roster system.

Taxation

Resource companies advised the panel that the Fringe Benefit Tax arrangements related to non-resident workforces are not a significant financial incentive and are not a major consideration in developing workforce strategies.

Analysis undertaken for the purposes of this review supported the advice provided by resource companies that in the majority of cases, the site of operations and the resource community are both categorised for taxation purposes as remote areas and therefore the same Fringe Benefits Tax exemptions apply.

The panel has been advised that the parliamentary inquiry is undertaking research specific to the issue of taxation in accordance with the inquiry terms of reference *‘The costs and/or benefits and structural incentives and disincentives, including tax settings, for companies choosing a FIFO workforce’*.

The Australian Government’s recently released White Paper on Developing Northern Australia²⁷ ruled out the declaration of a Special Economic Zone and does not consider other regional taxation arrangements outside of the recent amendments to the Zone Tax Offset.²⁸ The Australian Government Zone Tax Offset changes exclude non-resident workers, ensuring only resident resource workers can obtain the benefit.

The panel considers there remains significant opportunity to efficiently use the taxation system as a means to achieve regional economic outcomes that would benefit the nation as a whole.

The panel understands that the Queensland Government may consider this matter further based on the information and recommendations made by the parliamentary inquiry in relation to tax settings.

Rosters and safety

The resource industry indicated that there were productivity improvements with a non-resident workforce when operating at a site with fixed rostering arrangements across all sections of the workforce. A seven day on, seven day off roster or 14 day on, 14 day off roster appeared to support non-residential, permanent dwelling choices, as the changeover period was less frequent than other mines with a predominantly resident workforce operating on ‘lifestyle rosters’ (four days on, two days off, five days on, two days off or similar).

Advice was provided that the resource industry is moving towards longer shifts and even time rosters (seven days on, seven days off), due to productivity and workforce efficiency. One impact of this arrangement is that it provides workers with greater flexibility when deciding whether to reside in the community or commute from a source community.

Further information about rosters and safety is in **Appendix 3** of the report.

Mental health and safety related issues raised in relation to rosters are outside the terms of reference for this review and are being considered by the parliamentary inquiry.

²⁷ Australian Government, *Our North Our Future: White Paper on Developing Northern Australia*, https://northernaustralia.dpmc.gov.au/sites/default/files/papers/northern_australia_white_paper.pdf

²⁸ Australian Government, *Better Targeting the Zone Tax Offset Exposure Draft*, 16 July 2015, <http://www.treasury.gov.au/ConsultationsandReviews/Consultations/2015/Better-targeting-the-zone-tax-offset>

7.0 Non-resident worker accommodation

The location and standard of accommodation villages for non-resident workforces may have an economic impact on the sustainability of nearby resource communities.

The Lawrence Consulting report commissioned by Isaac Regional Council identified that a non-resident workforce spent significantly less than a resident worker in the local government area.²⁹ Lawrence Consulting estimated that for the Isaac local government area, a non-resident worker spent 9.3% of their overall wages within the local area compared to 30% of a resident worker's wages.

The panel acknowledges this figure is an estimate. As stated in the Lawrence Consulting report, it is difficult to model spending impacts for lower population bases due to the limitation on goods and services available locally.

However, the panel considers locating accommodation villages within resource communities, where it suits the relevant council and community, will provide opportunities to:

- maximise local spend by non-resident workforces, both directly and through increased procurement opportunities
- realise social benefits where facilities can be shared
- increase social integration and community participation.

This has the potential to provide medium to long-term benefits for the economic and social sustainability of the resource community.

Where a decision is made to locate an operational camp outside the resource community, there remains significant opportunities for businesses within both resource and regional communities to supply goods and services to the camp.

7.1 Current situation

The panel does not consider construction camps in scope of this discussion. By their nature constructions camps are temporary and not suitable for community integration.

In comparison, accommodation villages housing an operational non-resident workforce are usually long-term in nature. These could provide substantial economic benefits to the local community in terms of local spend on goods and services if located within the resource community.

²⁹ Isaac Regional Council, *Regional Spending Impacts of Resource Sector Workforce*, prepared by Lawrence Consulting, unpublished, June 2015.

Accommodation villages are provided either on or off lease (a mining lease or a petroleum lease). On lease villages are not subject to planning approvals and many local councils indicated that they had minimal involvement in determining the location and standard of those accommodation villages.

Accommodation villages that are located outside a mining or petroleum lease area are subject to the normal council and other planning requirements.

The panel observed examples of accommodation villages that house long-term operational non-resident workforces which were both attractive and well-integrated into the resource community. The panel considers these examples should be the norm, rather than the exception.

7.2 Future accommodation for a non-resident workforce

During consultation, some local councils advised that accommodation villages were assessed and approved by government on a project basis, without due consideration for the cumulative impacts of approved accommodation facilities and the local housing market.

This is evident in Moranbah, where there is currently excess capacity of single room dwellings as well as existing available housing. Isaac Regional Council advised that there are currently 29 305 single bed accommodation facilities in the local government area that are approved and constructed as well as 5198 single bed accommodation facilities that are approved but not constructed as at July 2015.³⁰ Applications are being made for additional accommodation villages within the Isaac local government area.

The panel is cognisant that housing availability changes over time and proponents develop accommodation plans to suit the life of mine. The panel believes that accommodation plans should have conditioned review periods, as required, to allow for changes to workforce accommodation plans throughout the life of the project.

The panel also believes that accommodation plans should be developed with local council. Where appropriate and supported by council, accommodation should enhance the local area and facilitate integration of the non-resident workforce into the community.

The panel considers that quality accommodation for non-resident workers has an economic benefit through increased worker satisfaction which leads to productivity as well as retaining a stable workforce.

The panel visited a number of accommodation villages which varied in standards, age and quality. It is the panel's view that the resource sector should house non-resident workers in accommodation that is commensurate with a standard across industry. An example is the Queensland Government's Economic Development Queensland

³⁰ Information provided to the panel by Isaac Regional Council, June 2015.

Non-resident worker accommodation guideline.³¹ This guideline applies within Priority Development Areas but could be adapted for use more broadly.

The cost of providing non-resident operational workers with an appropriate standard of accommodation should be a factor in assessing the economics of a proposed resource development.

The panel recognises that not all resource activity takes place near a resource community. In this instance, economic benefits for the nearest resource community or regional community may only be via procurement from local suppliers, both by proponents and accommodation providers.

Recommendation 1D: Accommodation plan

That the Queensland Government requires the resource activity proponent to develop an operational accommodation plan which:

- adequately addresses the availability of existing suitable housing and land stock in that community
- demonstrates the need, if any, for additional accommodation beyond existing capacity
- includes the size and staging of any proposed operational workforce village or other alternative structures
- ensures the operational workforce village complies with accommodation standards, such as the *Guideline for Non-Resident Workforce Accommodation (PDA Guideline no.3)*, March 2014, set by the Queensland Government in consultation with the regional council
- enforces the plan's conditions on all contractors and sub-contractors engaged by the resource activity owner to operate the activity
- incorporates timely review processes to ensure relevance and adaptability of the accommodation plan during the life of the resource activity.

Preparation of the plan must include consultation about the proposed location of the camp with the affected local council and community stakeholders (where the workforce village is deemed necessary by the state).

The panel recommends that monitoring of approval conditions should also address:

Recommendation 2D: Accommodation plan

- Number of rooms proposed.
- The number of rooms already constructed and the number of rooms approved but not yet constructed.
- Designated rooms for motelling.
- Number of operational workforce in residence at agreed reporting intervals.
- Reporting from all contractors engaged to undertake operational resource activities.
- The results of an independent audit of the approved accommodation plans undertaken at agreed periodic intervals (e.g. every five years).

³¹ Economic Development Queensland, *Non-resident worker accommodation, PDA guideline number 3*, March 2014, <http://www.dilgp.qld.gov.au/resources/guideline/pda/guideline-03-workers-accom.pdf>

8.0 Data collection

A lack of centralised and coherent data made it difficult for the panel to substantiate anecdotal information provided through consultation with stakeholders.

The effective collection, collation and dissemination of workforce, accommodation and procurement data to relevant stakeholders is one of the key recommendations of this review. This is essential to enable governments to accurately determine economic impacts of non-resident work practices on resource communities, nearby regional communities and source communities and to respond appropriately.

8.1 Current situation with data collection

There is a significant amount of data being collected on resource activity workforces in Queensland. Most of that data is provided voluntarily by resource industry participants and service providers.

The Department of Natural Resources and Mines, the Queensland Government Statistician's Office as well as the Queensland Resources Council currently collect a wide range of information on workforce characteristics for resource activities in Queensland. Some of this information is already available publicly, but not in a manner which makes it useful to relevant stakeholders, such as the mining companies, state government departments, local councils and small to medium businesses servicing the mining industry in Queensland. Examples of the reporting include:

The **Department of Natural Resources and Mines** collects workforce data under the *Coal Mine Health and Safety Act 1999*, primarily to determine levies payable by mining companies for provision of emergency services. At present data is collected for all operational coal mines. Petroleum and gas operations, quarries, exploration sites, small mines and gem fields operations are excluded from the data provided.

The **Queensland Resources Council** conducts an annual workforce survey. The data sought relates primarily to characteristics of resident and non-resident workforces. Compilation and release of certain elements of this sort of data over time would provide valuable information for stakeholders seeking to better understand current workforce trends and better plan for future projects. The panel understands that at present the response rate is not high enough to make the data compiled reliable as being representative of the Queensland resource sector.

The **Queensland Government Statistician's Office** has an established Resource Communities Research Program that monitors the population and accommodation impacts of resource development in Queensland. The Queensland regions reported on annually are the Bowen Basin, Surat Basin, Gladstone region and the Galilee Basin. These non-resident populations, comprising fly-in-fly-out and drive-in-drive-out (FIFO/DIDO) resource industry workers, are not included in Australian Bureau of Statistics resident population estimates or resident population projections produced by Queensland Government Statistician's Office.

Primary program outputs include non-resident and resident population estimates for late June each year, and projections of the non-resident populations out to a seven year horizon. Time series data are available for the Bowen Basin (2006 to 2014), Surat Basin (2008 to 2014) and Gladstone (2013 to 2014). Non-resident populations are presented by region, local government area and selected localities. Resident population estimates for these geographies are also provided. Data about commercial accommodation supply are also reported, and include local government area estimates of worker accommodation villages' bed capacity as well as the number of vacant and available hotel/motel rooms. Non-resident population estimates are grouped according to the type of commercial accommodation utilised.

The Queensland Government Statistician's Office also publishes a range of other data to inform policy and planning at a range of geographic levels including local government area and statistical area level 2. Products currently available about these regions include Queensland Regional Profiles and the 2013 edition population projections series. Population projections series are developed and published twice every five year census cycle, while the Queensland Regional Profiles are updated as new data become available.³²

8.2 Further data needs

Whilst the information already being collated is substantial, further fields of data and greater public access to the information collected is required in order to allow stakeholders to obtain an understanding of changes in resource industry workforces in Queensland and facilitate planning for the future. There are strong arguments for the expansion of the role of an existing appropriate government agency to collect, collate and distribute data on the changing workforce, procurement and accommodation characteristics of future resource projects.

For example, there is a significant amount of anecdotal information suggesting resource companies are increasing the proportion of their workforce employed through third party contracting companies on a contracted fixed rate or casual basis. This perceived trend is seen by many stakeholders as having a significant impact on the current prosperity and long-term sustainability of certain resource and regional communities. There is already data collected that identifies these changes but it is not clear and detailed enough to provide relevant stakeholders with the information they need to definitively determine whether this trend is in fact happening and to what extent.

Most resource companies provided the panel with timely data on operational personnel employed directly or through contractors. However they did not provide comprehensive numbers of casual workers employed at their mines sites through third party contracting companies. Some contractor companies did not reply to the panel's requests for information or chose not to meet with the panel during consultation.

³² Queensland Government Statistician's Office's key publications and data tables are publicly available at <http://www.qgso.qld.gov.au/>

Councils indicated they need comprehensive and accurate workforce, accommodation and procurement data to assist in planning for impacts from existing and future operational resource activities and to develop economic and social strategies to ensure the sustainability of their communities.

To date councils have had to rely upon independent reports prepared by private consultants to determine economic impacts of resource projects. The lack of reliable workforce, accommodation and procurement data means these reports are based on assumptions which often bring into question the validity of the findings. The availability of a more comprehensive suite of data will benefit all stakeholders seeking to assess, respond to and plan for impacts of resource activities.

The panel supports a comprehensive reporting program being put in place for all future resource activities. Further, existing operations should be encouraged to report on their activities, to provide a full picture of the industry for all stakeholders to use in future planning.

This data and the resulting interpretation of it will assist:

- a) resource companies in keeping stakeholders informed as to their activities and explaining decisions they are making on workforce, procurement and accommodation plans
- b) resource companies when reporting to the Coordinator-General over any proposed changes to project conditions at periodic reviews
- c) government in assessing industry trends, allocating funding and developing policy and procedures to facilitate industry development
- d) councils with long-term planning and setting infrastructure priorities, to prepare for future resource activities and deal with impacts being experienced from changes in operational resource activities.

Recommendation 5: Data collection

That an appropriate government agency collates and reports at appropriate survey times:

- the total number of workers by operation, identifying all direct hire, contract/casual and apprentice workers, and the principal place of residence by postcode of each worker
- the mode of transport for commuting from principal place of residence to workplace
- type of accommodation during roster
- workforce diversity, including Indigenous, female, workers with a disability.

The industry data should be made available to all relevant stakeholders including relevant local councils.

Figure 29 includes a list of data the panel considers would be valuable and whether this data is already being collected in some form:

Figure 29 Current data collected from the Queensland coal mining operations

Data sought	QGSO	DNRM	QRC
the number of onsite operational resource activity personnel, including contract/casual workers	annual	quarterly	annual
principal place of residence	x	x	annual
the mode of transport for commuting from principal place of residence to workplace	x	x	2012 and 2015
type of accommodation during roster	annual	x	2012 and 2015
resident versus non-resident population by operation	annual	x	x
third party contractors versus direct employees and contractors by operation	x	x	x
workforce diversity/demographics	x	quarterly	annual

The panel is mindful of the complexities involved in making changes to current data collection processes. However the panel considers it is important that one central agency be appointed to collate, analyse and distribute the data.

The information being sought is already held by the resource companies as part of their sound business practices. Including reporting requirements in the approval conditions for future projects will formalise a process that is already undertaken.

Rather than increasing red tape, creating a central collection point and formal process should reduce the time allocated by resource companies and others to the provision of the requested data.

Appendix 1 Panel members



**Mr Leo Zussino, Managing Director
Sun-Coast Business Consultants**

Mr Zussino has served as the Chair and Chief Executive Officer (CEO) of the Gladstone Ports Corporation (GPC), the Chair of the Gladstone Economic and Industry Development Board (GEIDB) and as the Chairman of the Australian Maritime Safety Authority. During the period 2000–12, when Mr Zussino was both the CEO of GPC and the Chair of the GEIDB, \$40 billion of resource industry development occurred on the shores of Gladstone harbour. He has extensive first-hand experience with the economic and social impacts associated with major resource related developments at a regional scale. Mr Zussino will chair the FIFO Review Panel.



**Councillor Anne Baker, Mayor
Isaac Regional Council**

As Mayor of the largest mining region in Queensland, Cr Baker is a passionate and active advocate for regional resource communities. After starting her local government service in 2007, she was elected Mayor of Isaac Regional Council at the 2012 local government elections. Mayor Baker currently serves as a Director of Whitsunday ROC Ltd, a Director of Isaac Affordable Housing Trust, a Director of Moranbah Early Learning Centre and a Member of the Local Buying Community Foundation Advisory Committee. As a community leader and long-term resident of Moranbah for 17 years, her experience and knowledge will provide valuable insight into the unique challenges faced by regional resource communities in Queensland.



**Councillor Deirdre Comerford, Mayor
Mackay Regional Council**

Councillor Comerford was first elected to Mackay City Council in 1994 and elected Mayor in 2012, serving 17 years in local government. She is also serving on the Local Government Association of Queensland's Policy Executive representing Mackay, Isaac and Whitsunday Regional Councils; is Chair of Diversify Mackay Leadership Alliance; and Chair and Director of Whitsunday ROC Ltd and Chair Regional Capitals Australia. Councillor Comerford will be able to provide insight into the review as many workers living in the Mackay Regional Council area travel to Central Queensland to work in the mining industry. Mackay is also a vital hub in the mining equipment, technology and services supply chain.



**Doctor Geoff Dickie
Chair, Queensland Exploration Council**

Dr Dickie has extensive first-hand knowledge of the mining and petroleum sector with over 40 years' experience. He has worked previously in mining and petroleum exploration and development in Australia and Canada and is the current Chair of the Queensland Exploration Council. Dr Dickie has managed government resource departments at both commonwealth and state levels including as Special Advisor, Native Title and Mining and as Executive Director, Minerals and Petroleum Division in the Department of Natural Resources and Mines. His three years as Deputy Coordinator-General ensures he has a comprehensive understanding of the statutory assessment processes, the issues associated with workforce management and the role of the resources sector in regional Queensland.

Appendix 2 Stakeholders

List of stakeholders consulted by the FIFO Review Panel

Peak bodies
Australian Petroleum Production and Exploration Association (APPEA)
Australian Manufacturing Workers' Union (AMWU)
Australian Mines and Metals Association (AMMA)
GasFields Commission
Australian Workers Union (AWU)
CFMEU Mining and Energy Division Queensland District
Electrical Trades Union (ETU)
Local Government Association of Queensland
Queensland Resources Council
Peak Downs CFMEU
Resource Industry Group (RIG)
Resource Industry Network

Economic development and community associations
Bowen Collinsville Enterprise Inc.
Clermont Community and Business Group
Commerce North West
Commerce Roma
Diversify Mackay Leadership Alliance
FIFO Wives Group
Girudala Community Co-Operative Society Ltd.
Gladstone Engineering Alliance Inc.
Kalkadoon Native Title Aboriginal Corporation
Mackay Chamber of Commerce
Mitakoodi Mayi Aboriginal Corporation
Moranbah Traders Association
North Queensland Bulk Ports
Toowoomba and Surat Basin Enterprise
Townsville Enterprise Limited (TEL)
Whitsundays Marketing and Development Limited
Young Professionals - Mackay

Government
Banana Shire Council
Central Highlands Regional Council
Charters Towers Regional Council
Cloncurry Shire Council
Department of Environment and Heritage Protection
Department of Natural Resources and Mines
Department of State Development
Gladstone Regional Council
Isaac Regional Council
Livingstone Shire Council
Mackay Regional Council
Maranoa Regional Council
Mount Isa City Council
Office of the Coordinator-General
Queensland Treasury
Queensland Government Statistician's Office
Rockhampton Regional Council
Toowoomba Regional Council
Townsville City Council
Western Downs Regional Council
Whitsunday Regional Council

Industry
Adani Mining
Anglo American
APLNG
Arrow Energy
Bechtel
BHP Billiton, BMA
Civeo Pty Ltd
Curry Contracting
Glencore (Coal)
Glencore (Copper)
Glencore (Zinc)
G&S Engineering
GVK Hancock Coal
Jellinbah Group
JM Kelly Group
Mackay Airport

Industry
MMG
Peabody Energy
Porters
Qantac Pty Ltd
QGC
Rio Tinto
Santos GLNG
Townsville Airport
WorkPac Group

State Members of Parliament
Mr Andrew Cripps MP, Member for Hinchinbrook
Mr Jeff Seeney MP, Member for Callide
Mr Jim Pearce MP, Member for Mirani
Mr Robbie Katter MP, Member for Mount Isa

Universities
Central Queensland University (CQU)

The panel also met with two stakeholders who requested their details be kept confidential.

Appendix 3 Stakeholder consultation

The use of non-resident workforces and workforce composition

- The majority of stakeholders consulted during the review acknowledged that the use of non-resident workforces is a necessary part of the mining industry in Queensland.
- Many local councils and community groups acknowledged profitable mining operations were essential to the growth and development of sustainable resource communities and nearby regional communities.
- Resource companies advised workforce composition at each mine was subject to a variety of factors, including geography, market forces and legacy arrangements. They noted that blanket rules were not always the best option, preferring to develop the best workforce arrangements for each mine site, which can change over the life of a mine.
- The resource sector suggested that non-resident workforces can lead to increased productivity and employment diversity with increased female and Indigenous participation and an increase in workers from non-traditional mining backgrounds.

Local government feedback

- Local councils expressed frustration over their perceived lack of genuine consultation by mining companies and government approvals agencies during mine project planning and approval processes.
- Councils indicated there were failings in the current project approvals processes including:
 - approvals for smaller projects did not include conditions relating to social impacts the project may have on the local community
 - lack of any consideration of the cumulative impacts multiple projects can have on the local community when determining the approval conditions
 - projects being approved without robust monitoring and reporting of the impacts of the mine operations on local communities throughout the operational life of the mine
 - a failure to consider short, medium and long-term needs of the local community.
- Councils acknowledged the significant investment resource companies have made in their communities such as infrastructure improvements, community facilities and health services.
- A number of councils noted the lack of assistance and guidance available to them from government in their dealings with resource companies, both at the project

planning and approval stages and then throughout the operational life of the mine.

Local jobs and casualisation of the workforce

- A number of community groups and councils reported a perceived trend by resource companies towards employing FIFO workers in preference to locals. This was an issue raised across all resource regions.
- Several union representatives suggested there was a concerted effort by some resource companies to use non-resident workers, contractors and third-party labour hire companies to significantly reduce the level of union members within their operational workforces.
- Various resource community representative organisations emphasised the importance of giving local workers in resource towns the first opportunity for employment and training.
- Some proponents highlighted existing practices of actively recruiting locally and reporting to the community on rates of local employment.
- The panel heard from a variety of stakeholders that there was a growing trend towards 'casualisation of the workforce' suggesting that resource companies were moving away from hiring permanent employees and instead outsourcing workforce requirements to third party contractors who then hire on a casual basis.
- Casualisation was seen as having a negative impact on resource communities as the roles did not have the same security and conditions as those enjoyed by full time workers.
- The reduced job security and perceived preference for employing non-resident workers are seen to be accelerating the movement of workers away from resource areas to other locations in Queensland. Some community groups are concerned that if this trend continues it will have an impact on the long-term sustainability of some regional centres.

Resource sector feedback

- The resource industry emphasised the importance of maintaining existing approvals as significant financial investment have been made on the basis of the conditions in current approvals.
- Retrospective changes to existing approvals would be strongly opposed by industry as well as the investment sector from a sovereign risk perspective.
- The current market conditions and short to medium term economic outlook are a concern for coal and certain mineral mines. Commodity prices have fallen significantly, impacting on revenues and therefore stifling exploration and investment in future projects.
- The resource industry emphasised the importance of Queensland remaining globally competitive as a place in which to do business.

- Resource companies acknowledged current market conditions had resulted in an industry-wide push to reduce variable and fixed costs, including workforce costs which are a major component of their budgets and therefore under constant review.
- Resource companies noted the importance of maintaining the best possible workforce but in a manner which provides the flexibility to respond to external factors where necessary.
- Many proponents raised the importance of their relationship with local communities. Effective forums for community engagement were raised by some proponents as an important factor in the success of their operations.

Rosters

- Traditionally construction workforces have been willing to work longer rosters to maximise their income. Rosters of 21/9, 10/4, 7/7 and 14/14 are common.
- Long-term operational workforces have traditionally worked under what are known as 'lifestyle' rosters' which provide for nine days on and five days off, broken up over a 14 day period (4/2 and 5/3), though 7/7 rosters have been employed at more remote sites.
- All stakeholders have acknowledged that where mines are within safe travelling distance of a resource community, the lifestyle roster facilitates workers residing in the local area. The shorter, more frequent breaks on this roster are seen as encouraging workers to stay and spend locally during their recreation time.
- Communities also note the benefits of the lifestyle roster as it is more conducive to workers having time to contribute to local communities through volunteering and local sports and cultural group participation.
- Over the past few years a number of operational workforces have moved towards longer fixed rosters of 7/7 and 14/14, even where the mine is in close proximity to an existing community.
- These longer rosters and the growing non-resident options being made available by some mine operators, are promoting a trend for workers to permanently reside away from the resource community.
- Some mining companies acknowledged that in terms of creating the best long-term working conditions, a lifestyle roster was the more sustainable option, but overall longer fixed rosters are supported by mining companies as they provide greater opportunities to maximise efficiency of costs and productivity in mining operations.

Housing and accommodation villages

- The location of operational workforces and long-term workforce housing policies were important issues to all local community groups and councils consulted.
- Councils expressed frustration over a perceived lack of genuine consultation when accommodation plans are being developed and approved for new mine workforces.
- Resource companies and camp operators noted issues in establishing camps within communities, including planning, zoning and native title constraints.
- Most councils stated their preference was for long-term operational accommodation camps to be located within the nearest community, where possible, to maximise potential economic and social benefits to the local community.
- Some councils and community groups saw the establishment of camps outside the community as an attempt by resource companies to reduce connection with the local community, avoid local planning laws in developing their camps and create an environment with less outside distractions for the workforce.
- Councils asserted that camps located outside the community provided little economic benefit and placed additional pressure on local health services which was not being recognised in funding allocations from government.
- Resource companies provided detail on the wide variety of housing and camp arrangements for their various operations.
- A number of resource companies provide financial incentives to encourage workers to live locally. Across industry there is a great variation as to the extent and uptake of these incentives to live locally. Some companies highlighted a difficulty they experienced in attracting workers to live locally and indicated that it was their preference to have a local workforce where possible as it fostered greater stability.
- Some stakeholders consulted suggested the incentives provided by mining companies were less than the cost of housing a non-resident worker and not attractive to workers considering settling in the local area.
- Taxation incentives for workforce accommodation were raised throughout the review. Some stakeholders advised there were financial incentives for the resource sector to house workers in accommodation at the mine site or other locations outside the local community. Most resource companies suggested that it was not a significant issue in their decision making.

Supply chain opportunities

- Councils and local commerce groups acknowledged the efforts of some resource companies to buy local where possible.
- A number of camp and mine operators detailed their efforts to source locally and also noted that often local suppliers could not meet the requirements of the mines and camps.
- The level of assistance being provided to local suppliers to meet resource company contract and procurement requirements was raised as an issue.
- A major issue for commerce groups and small business representatives consulted in source and resource communities is the recent move by resource companies to:
 - a) extend payment terms from 30 to 60 and even 90 days
 - b) reduce contract terms from three and five years to as little as 12 months.
- Small business operators acknowledge resource companies are entitled to manage their contracting arrangements as they see fit, though these two changes were seen as damaging to the ability of local small businesses to:
 - a) maintain cashflows when waiting on payment for 60 to 90 days
 - b) obtain finance and invest in business infrastructure for growth when contract terms are limited to 12 months.

Appendix 4 Coal royalty rates

The table below is a summary of coal royalty pricing schemes over the past 20 years.

Coal royalty rate schemes				
Prior to pricing tier schemes		Rate		
1994 - June 2008	Export coal	7%		
1994 - 2000	Domestic coal	1% – 7% (increases of 1% annually)		
2000 - June 2008		7%		
Pricing tier schemes		Average price/tonne	Rate	
Jul 2008 - Sept 2012	Two tier system, domestic and export	Up to \$100	Flat rate	7%
		Above \$100	First \$100	7%
			Balance	10%
Oct 2012 onwards	Three tier system, domestic and export	Up to \$100	Flat rate	7%
		Above \$100 and up to \$150	First \$100	7%
			Balance	12.50%
		Above \$150	First \$100	7%
			Next \$50	12.50%
Balance	15%			

Source: Queensland Treasury, provided to the FIFO Review Panel, June 2015.

Definitions

Non-resident worker	Non-resident workers are people who fly-in-fly-out or drive-in-drive-out (FIFO/DIDO) to work and live in the area temporarily while rostered on, and who have their usual place of residence elsewhere. Non-resident workers include FIFO/DIDO mining and gas industry employees and contractors, construction workers and associated sub-contractors
Resident worker	Any worker or contractor who returns to their principal place of residence at the end of each shift whilst on roster.
Resource activity	Includes coal, mineral, oil and gas exploration and production
Resource region	The Surat Basin, Bowen Basin and the North West minerals region.
Resource community	A community that is located within safe travelling distance of a major resource activity and provides workforce and services to operate the activity. For example, Moranbah, Mount Isa, Roma.
Nearby regional community	A community that is within or adjoins a resource region and services the mining operations either through non-resident workers or through supply chains. For example, Mackay, Emerald, Dalby.
Source community	Any community which provides workers and services for operational mining activities outside resource regions and nearby regional communities. For example, Brisbane, Cairns, Gold Coast.
Safe driving distance	45 minutes or less in travel time from a resource activity to a worker's residence. This is consistent with QGN16 Guidance Note for Fatigue Risk Management which provides a medium level of fatigue risk where the commute is one hour or greater after a shift.

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