COAL RAILINGS FORECAST FOR CENTRAL QUEEENSLAND

A report prepared by Energy Economics for the Queensland Competition Authority

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1 EXECUTIVE SUMMARY

Coal output from the Central Queensland Coal Region has achieved sustained high levels since May 2013 and is on track to substantial exceed previous volume forecasts for fiscal 2014. We have analysed the reasons for this surge in output and re-evaluated our mine-by-mine railings forecasts for the UT4 period in light of the latest available data.

The main reasons for the higher than expected coal railings this year are as follows.

1. Energy Economics' previous forecasts of production from BHP Billiton Mitsubishi Alliance's (BMA) mines substantially underestimated the increases in output that would result from de-bottlenecking programmes and other improvements at BMA mines.
2. Rainfall over the Central Queensland coal producing areas has been extremely low during fiscal 2014 to date; 40% below average. There have so far been no flood events during the wet season that have been big enough to substantially disrupt mining or railing of coal.
3. Central Queensland's longwall mines have achieved a very strong production performance so far this fiscal year, with no reported prolonged breaks in production due to roof-falls or spontaneous combustion issues.
4. Mine capacity expansion projects in the region have ramped up to full capacity more quickly than we expected; for example at the Lake Vermont, Yarrabee, Daunia and Middlemount expansion projects.

The abovementioned increase in the evaluated production capacity of the BMA mines has resulted in a significant increase in our forecast railings volumes throughout the four year UT4 forecast period, however the other three factors are largely transitory in nature and are expected to only have a modest impact on coal railing volumes post fiscal 2014.

Energy Economics updated forecasts conclude that coal railings in the Central Queensland Coal Region will increase from 182.3 million tonnes in fiscal 2013 to 225.1 million tonnes in fiscal 2017. This is an increase of 42.8 million tonnes over the four year period and represents a compound annual growth rate of 5.4%.

Coal railings to customers within Queensland are expected to increase by 2.3 million tonnes over the forecast period (1.9 million tonnes previously) to 10.0 million tonnes. Coal demand in Queensland declined over many years through fiscal 2013, as rapid growth in gas-fired and renewable electricity generation capacity impacted load factors at coal-fired power stations. Last year we forecast a substantial recovery in domestic coal railings, based on '*forecast strong growth in electricity consumption in Queensland and an assumption that domestic gas prices will increase towards export parity levels'.* Recovery of coal demand in Queensland's electricity sector has in fact been much more sudden than previously expected and this has improved the short term outlook for domestic railings.

Table 1 Forecast coal railings by destination, Mt

Fiscal year	2014f	2015f	2016f	2017f
Queensland Consumers				
Gladstone Power Station	3.8	3.9	3.9	3.9
Stanwell Power Station	3.3	3.7	3.8	3.9
QAL	1.4	1.3	1.3	1.3
Yarwun, Alcan	0.3	0.3	0.3	0.3
Cement Aus.	0.2	0.2	0.2	0.2
Bowen Coke	0.1	0.1	0.1	0.1
QNI Yabulu	0.3	0.3	0.3	0.3
Subtotal	**9.3**	**9.9**	**9.9**	**10.0**
Export & Interstate				
Abbot Point	24.7	26.8	31.0	32.9
DBCT	66.3	63.3	59.3	60.2
HPCT	41.7	40.0	41.7	46.9
WICET	-	2.1	6.6	10.6
RGTCT	64.3	60.3	62.5	64.4
Barney Point	4.7	3.2	-	-
Subtotal	**201.7**	**195.7**	**201.2**	**215.0**
Total	**211.0**	**205.6**	**211.1**	**225.1**

Source: Energy Economics

Queensland's coal exports are comprised of 72% metallurgical coal and 28% thermal coal - both of these market segments remain in oversupply; with international prices remaining very subdued. However, growth in international coal demand is expected to be sufficient to accommodate our forecast increase in exports from the Central Queensland Coal Region.

Energy Economics forecasts that coal railings to port, for distribution to export and interstate markets, will increase by 40.5 million tonnes over the forecast period. International coal market conditions remain largely in line with the trends foreseen in our 2013 report, but it is noted that the fall in China's metallurgical coal import volumes over the first two months of this year and the surge in Queensland's metallurgical coal exports over the past eleven months have exacerbated oversupply and resulted in further price reductions on international metallurgical coal markets.

The decline in coal prices in recent months argues against any additional development of new mines or expansions of existing mines in Central Queensland beyond the project pipeline envisaged in our 2013 report. On the other hand, the considerable progress in cost cutting that has already occurred in Queensland will likely forestall mine closures beyond those already encompassed in the 2013 forecasts. We note however that the recent price falls have increased somewhat the downside risk to forecast volumes, particularly with regard to those high cost metallurgical coal opencast operations that have limited reserve lives. Early closure of such mines cannot be ruled out in the current price environment.

The list of coal mines in operation in Central Queensland is currently as envisaged in our forecast of last year. Furthermore, our view on the development of new mines and on mine closures remains substantially unchanged from our previous forecast.

As outline in our 2013 report, three greenfield coal mine projects are currently under construction in the region: Caval Ridge, Grosvenor and Eagle Downs, however the latter two of these are underground projects in the early stages of construction and with long lead times before full commissioning. With regard to greenfield projects yet to start construction, Energy Economics continues to factor into its UT4 forecast horizon production from the Drake, Byerwen and Springsure Creek projects.

Our forecasts of substantial mine expansions at the Collinsville, Caval Ridge (Stage 2), Rolleston, Cook and Baralaba mines remain intact, as do numerous smaller mine capacity expansions. Since our last forecast we have bought forward a resumption of mining at the idled Norwich Park mine to fiscal 2016 (from fiscal 2018). We have pushed back closure of the Newlands Northern underground mine from 2014 until 2017, with residual longwall panels now expected to be extracted at a slower production rate than previously estimated. Newlands opencast operations are forecast to continue in operation through the UT4 period (until reserve exhaustion in fiscal 2018) although at current thermal coal prices early closure cannot be ruled out. We continue to assume that the small Eaglefield opencast operation will close in fiscal 2016 due to exhaustion of coal reserves.

As tabulated below, Energy Economics' updated railings forecasts are higher than those that we prepared in July 2013, but remain on average substantially lower than Aurizon Network's 2013 forecast volumes.

Table 2 Central Queensland coal railing forecast comparison, Mt

Financial year to June	2014f	2015f	2016f	2017f	Total
Aurizon Network 2013 (A)	199.6	222.2	236.5	252.1	910.4
Energy Economics 2013 (B)	190.6	198.3	207.6	219.7	816.3
Energy Economics 2014 (C)	211.0	205.6	211.1	225.1	852.8
Difference (C-A)	11.4	-16.6	-25.3	-27.0	-57.6
% Difference	5.7	-7.5	-10.7	-10.7	-6.3
Difference (C-B)	20.4	7.3	3.5	5.4	36.5
% Difference	10.7	3.7	1.7	2.4	4.5

Over the course of the four year UT4 period Energy Economics forecasts total Central Queensland Coal Region railings will be 852.8 million tonnes, which is 36.5 million tonnes (4.5%) higher than our 2013 forecast of 816.3 million tonnes.

The levels of coal railings forecast by Energy Economics and by Aurizon Network are not expected to be constrained by rail and port capacity. There are comfortable margins between Energy Economics forecast railings and the forecast capacity at the ports of Abbot Point, Hay Point and Gladstone.

2 INTRODUCTION

In May 2013, the Queensland Competition Authority (QCA) engaged Energy Economics to assist it in verifying the reasonableness of traffic volume forecasts submitted to the QCA by Aurizon Network Pty Ltd (Aurizon). Specifically, Energy Economics was asked to provide an independent review of coal railings from mines in the Central Queensland Coal Region to export terminals and domestic customers over a four year period, from the year ending June 30 2014 (fiscal 2014) to fiscal 2017.

In formulating its view on future coal railings Energy Economics based its evaluations on the parameters listed below.

- Coal demand and supply in domestic and international markets;
- An appraisal of current mine capacity, mine expansion projects, new mine developments, current mining issues and future mining conditions;
- Coal reserves and mine life;
- Mining costs;
- Rail infrastructure capacity, contractual arrangements and charges;
- Potential changes at the mine level in terms of railing practices; and
- Port capacity, contractual arrangements and charges.

In February 2014, the QCA engaged Energy Economics to update its traffic volume forecasts, taking into consideration the higher than expected railings in fiscal 2014 to date.

3 DOMESTIC COAL DEMAND

Coal demand in Queensland is dominated by the electricity generation sector, which accounts for 91.0% of coal distributions to Queensland consumers. The non-ferrous metals processing sector and the cement sector are also significant coal consumers in Queensland, accounting for 6.7% and 0.8% of intra-state coal distributions respectively. Together, these three end-use sectors account for 98.5% of total coal distributions within the state.

In our 2013 report we surmised the following.
Coal railings to customers in Queensland are expected to increase by 1.9 million tonnes over the forecast period. Coal demand in Queensland has fallen over recent years, as rapid growth in gas-fired and renewable electricity generation capacity has impacted load factors at coal-fired power stations. The expected recovery in domestic coal demand is based on forecast strong growth in electricity consumption in Queensland and an assumption that domestic gas prices will increase towards export parity levels.

Recovery of coal demand in Queensland's electricity sector has in fact been much more sudden than we expected last year. In particular, in 2013 we forecast that coal consumption at the Gladstone Power Station would increase from 2.9 million tonnes in fiscal 2013 to 3.3 million tonnes in fiscal 2014 – a 14% increase. Year-to-date data now indicates a 30% increase to 3.8 million tonnes is possible. We have adjusted our forecasts to accommodate this more rapid recovery in demand.

Coal demand forecasts for the non-ferrous metals processing sector, the cement sector and the coke-making sector have been updated using the latest data, but have not materially altered from the 2013 forecasts.

Total domestic railings from Central Queensland coal mines are now expected to increase by 2.3 million tonnes over the UT4 forecast period, from 7.7 million tonnes in fiscal 2013 to 10.0 million tonnes in fiscal 2017.

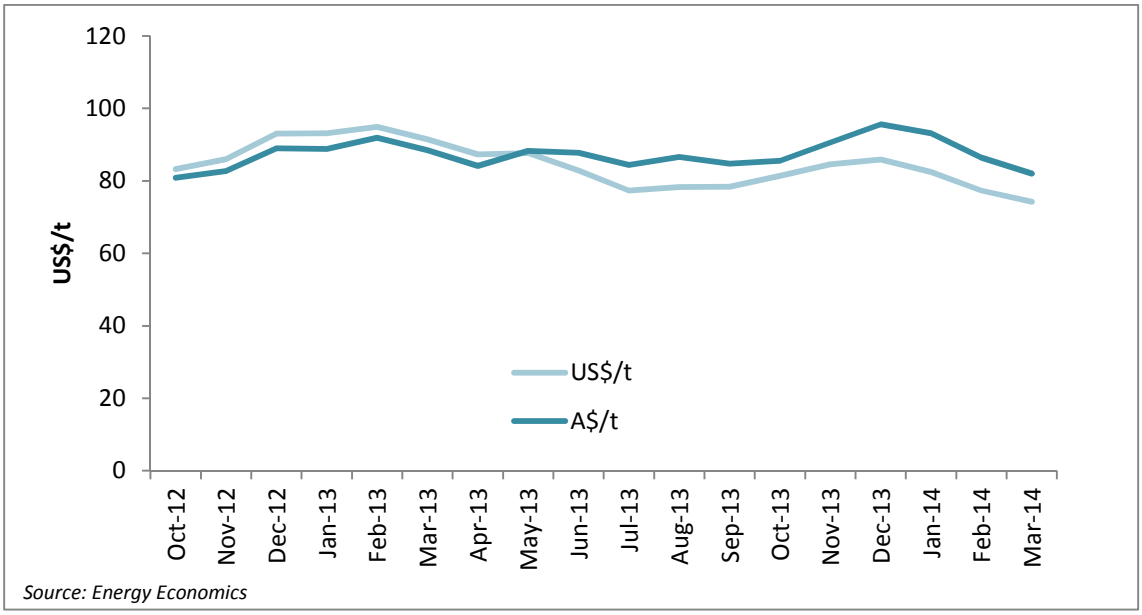
Table 3 Coal railings from Central Queensland mines to domestic Queensland consumers

Fiscal year	2014f	2015f	2016f	2017f
Queensland Consumers				
Gladstone Power Station	3.8	3.9	3.9	3.9
Stanwell Power Station	3.3	3.7	3.8	3.9
QAL	1.4	1.3	1.3	1.3
Yarwun, Alcan	0.3	0.3	0.3	0.3
Cement Aus.	0.2	0.2	0.2	0.2
Bowen Coke	0.1	0.1	0.1	0.1
QNI Yabulu	0.3	0.3	0.3	0.3
Total	**9.3**	**9.9**	**9.9**	**10.0**

4 INTERNATIONAL COAL MARKETS

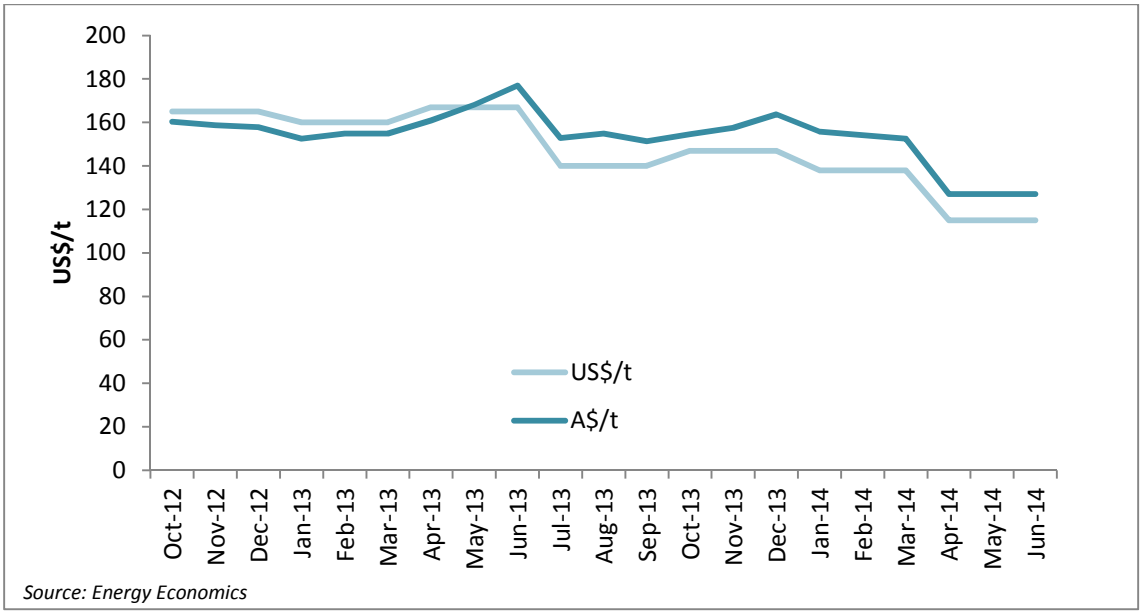
International coal market conditions are largely following the trends foreseen in our 2013 report. International coking coal and thermal markets remain in oversupply; with prices remaining very subdued, as graphed below.

Figure 1 Thermal coal spot price – FOB Newcastle



Source: Energy Economics

Figure 2 Hard coking coal (Curragh) quarterly price FOB Queensland



Source: Energy Economics

It is noted, however, that the fall in China's metallurgical coal import volumes over the first two months of this year and the surge in Queensland's metallurgical coal exports over the past eleven months have

resulted in exacerbated oversupply on international metallurgical coal markets. The recent fall in hard coking coal prices to US$120 per tonne FOB Queensland (for the April to June 2014 quarter) is considered unsustainable, and will likely represent the bottom of the market for quarterly pricing. At this price level a substantial proportion of the United States coking coal sector is estimated to be cash negative, with indicative cash costs in Central Appalachia currently running at US$125 - $130 per tonne FOB. On the other hand, the large BHP Billiton coking coal mines in Central Queensland are understood to have now cut C1 costs (cash costs excluding royalties) to under US$100 per tonne FOB.

The decline in coal prices in recent months argues against any additional development of new mines or expansions of existing mines in Central Queensland beyond the project pipeline envisaged in our 2013 report. On the other hand, the considerable progress in cost cutting that has already occurred in Queensland will likely forestall mine closures beyond those already encompassed in the 2013 forecasts. We note, however, that the recent price falls have increased the downside risk to forecast volumes, particularly with regard to those high cost metallurgical coal opencast operations that have limited reserve life. Early closure of such mines cannot be ruled out in the current price environment.

Seaborne coal demand has continued to grow strongly and we remain of the opinion that demand will continue to grow sufficiently to accommodate our forecast increases in Queensland's coal exports.
In 2013, coal imports by the big three coal importing countries were as follows.

1. China: up 13% to 327 Mt
2. Japan: up 3.5% to 192 Mt
3. India: up 24% to 163 Mt.

In general we remain comfortable with our 2013 evaluation of international coal markets, the main conclusions of which are replicated in italics below.

"Overcapacity is expected to continue to be the main theme in international coal markets over the next two to three years, with prices for Queensland's thermal and metallurgical coal exports expected to remain relatively low over this timeframe."

"Competition in the international metallurgical coal market will remain intense through the forecast period. Mozambique's new coking coal industry has ramped up exports to meaningful levels, but the next major step-up in its exports awaits construction of the new Nacala port and rail corridor, which is not expected to be commissioned until early 2015. Much of Queensland's cost advantage over competitors in Canada and the United States had been whittled away over recent years by increasing costs across the board and the strong Australian dollar. In this regard the recent 11% fall in the value of the Australian dollar against the United States dollar is very significant, particularly set alongside the robust cost-cutting now taking place across the Queensland coal sector. The United States is Australia's biggest competitor in the international metallurgical coal trade, with 20% of the market versus Australia's 50%. The expected withdrawal of some higher cost United States metallurgical coal tonnage from export markets will put a floor under metallurgical coal prices and enable significant growth in Central Queensland's export volumes through the forecast period. Nevertheless, metallurgical coal

prices are expected to remain relatively low over the next two to three years and the existing capacity overhang is sizeable, discouraging investment in additional capacity in the Central Queensland coal region over that timeframe."

"International thermal coal markets have been characterised over the past two years by strong growth in demand, but even stronger growth in supply capacity. The capacity overhang that has developed will be progressively eroded over the next two years by ongoing demand growth and to a lesser degree by closures of high-cost mines; however we do not expect supply-demand balance to be achieved until fiscal 2016. Energy Economics expects price recovery at that time could be quite sudden and substantial. Higher prices will be necessary to encourage development of the next generation of [thermal coal] mines required to satisfy international demand, as these will generally have higher costs and/or lower rank (lower energy) than current mines. In other words, they will typically have higher production costs per unit of net energy contained.

The world's population grew from 6.1 billion in 2000 to 7.0 billion at the beginning of 2012. Continued growth at that rate would see global population increase by another billion people by 2022. Furthermore, electricity consumption per person is continuing to increase, even in economically mature economies."

Further work updating demand forecasts always provides some additional insight and certainty to volume forecasts, however we have concluded that full scale re-analysis of international coal demand is not necessary as part of the UT4 process at this time.

5 COAL RAILINGS

Coal output from the Central Queensland Coal Region has grown very strongly in the fiscal year to date, and is on track to substantial exceed previous forecasts. We have re-evaluated our mine-by-mine railings forecasts for the UT4 period in light of the latest available data.

Energy Economics now forecasts that coal railings in the Central Queensland coal region will increase from 182.3 million tonnes in fiscal 2013 to 225.1 million tonnes in fiscal 2017. This is an increase of 42.8 million tonnes over the four year period and represents a compound annual growth rate of 5.4%.

Table 4 Railings by destination, Mt

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Total	**211.0**	**205.6**	**211.1**	**225.1**

Source: Energy Economics

Our forecasts assume a return to 'average' wet seasons through the remainder of the forecast period, following a dry fiscal 2013. Therefore our latest forecast show a fall in railings in fiscal 2015, despite factoring in the first full year of production at the BHP Billiton Mitsubishi Alliance's new Caval Ridge mine and the full-year impact of the resumption of production at the Collinsville mine.

Nevertheless, this year's railings re-evaluation has resulted in a significant increase in our overall forecast volumes, with total railings over the four year period increasing by 4.5%, from 816.3 million tonnes in our July 2013 forecast to 852.8 million tonnes for our current forecast.

Table 5 Central Queensland coal railings forecast comparison

Financial year to June	2014f	2015f	2016f	2017f	Total
Aurizon Network 2013 (A)	199.6	222.2	236.5	252.1	910.4
Energy Economics 2013 (B)	190.6	198.3	207.6	219.7	816.3
Energy Economics 2014 (C)	211.0	205.6	211.1	225.1	852.8
Difference (C-A)	11.4	-16.6	-25.3	-27.0	-57.6
% Difference	5.7	-7.5	-10.7	-10.7	-6.3
Difference (C-B)	20.4	7.3	3.5	5.4	36.5
% Difference	10.7	3.7	1.7	2.4	4.5

Given that three quarters of fiscal 2014 have already passed, we have used annualised year-to-date data as our production projections for fiscal 2014 for most mines. Exceptions to this are forecasts for two mines that have not been in operation throughout the year (Collinsville mine and Caval Ridge mine) and minor adjustments for other mines where data indicates year-to-date production has been substantially higher or lower than sales or distributions data. As such the fiscal 2014 mine railings estimates should be seen as projections rather than forecasts. They assume the high performance of the coal chain evident over the first eight months of the year is continued through June 2014 and should therefore be viewed as a high case projection rather than a base case.

5.1 Evaluation of fiscal 2014 year-to-date railings

Data available for the year-to-date indicate that on an annualised basis Central Queensland railings for fiscal 2014 will be around 211 Mt. This would be 10.7% (20 million tonnes) greater than Energy Economics previous (July 2013) forecast of 190.6 Mt. The question arises as to whether this variance is primarily the result of transitory impacts on volumes, or if the large variance indicates forces are at play that would substantial impact forecasts for the remaining three years of the UT4 period.

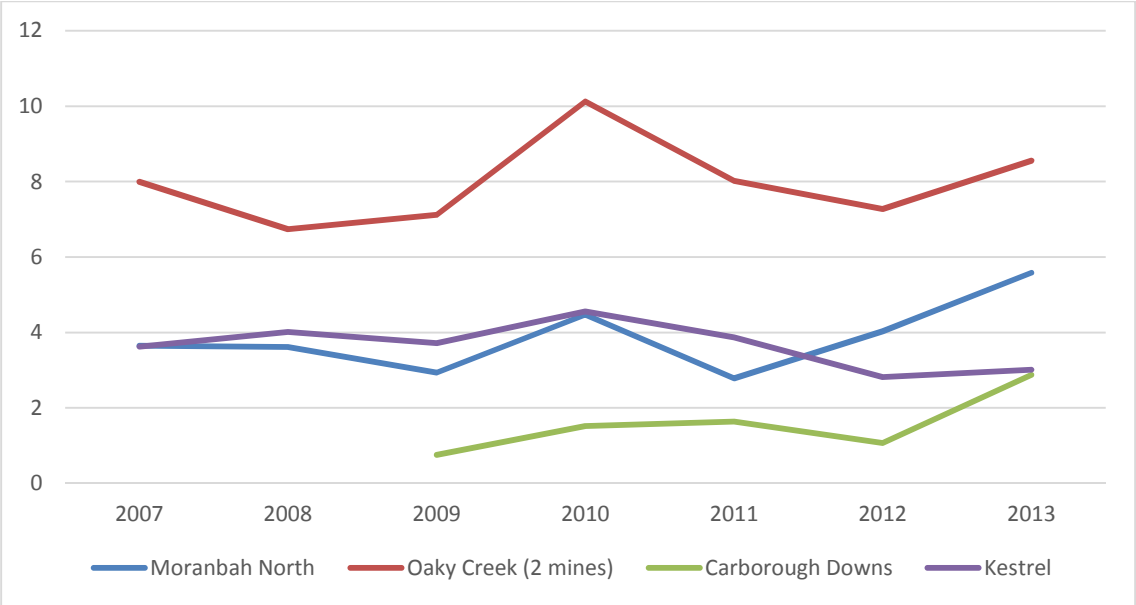
Our analysis indicates that the following main factors have driven the surge in railings above forecast levels in fiscal 2014 (in order of perceived importance).

1. Energy Economics' previous forecasts of production levels from BHP Billiton Mitsubishi Alliance's (BMA) mines can now be seen to have substantially underestimated the increases in output resulting from de-bottlenecking programmes and other improvements at the BMA's mines. The BMA's coal production increased by a remarkable 38% in 2013 - from 37.9 million tonnes in a strike-affected 2012 to 52.4 million tonnes in 2013. Furthermore, the BMA's coal output for fiscal 2014 is tracking even higher, towards 58.8 million tonnes. If production levels are maintained at this rate for the remainder of the 2014 fiscal year, the resultant 58.8 million tonnes of railings would be 12.5 million tonnes higher than the 46.3 million tonne level that we forecast in our July 2013 report.
2. Rainfall over the Central Queensland coal producing areas has been extremely low in fiscal 2014 to date; 40% below average. There have so far been no flood events in the wet season that have been big enough to substantially disrupt mining or railing of coal. Historical port export data shows railings in the wet season (January through March) are on average 16%

lower than in the other months of the year. We therefore estimate that the virtual absence of wet season disruption this year has resulted in railings being 8 million tonnes higher than during an average wet season. Furthermore, low rainfall outside of the wet season can be assumed to have decreased the number and duration of production stoppages due to wet haul roads. Assuming that this has resulted in a further three million tonnes of additional production, the total impact of the dry year to date would be 11 million tonnes. It is noted that this 11 million tonnes and the 12.5 million tonne BMA variance discussed in the previous bullet point are not addable, as the BMA figure includes part of this dry-year benefit to coal production.

3. Central Queensland's longwall mines have had a very strong production performance so far in fiscal 2014, with no reported serious breaks in production due to roof-falls or 'heatings' (spontaneous combustion of residual coal in the mined out areas). The four Central Queensland longwall mining operations for which separate production data is available (graphed below) produced 20.0 million tonnes of coal in 2013, which was up by 4.9 million tonnes from 2012 and up 3.3 million tonnes from the average production between 2009 and 2012.

Figure 3 Recent annual production from selected longwall mines (Mt of product)



In addition to the three factors discussed above, increased railings have also flowed from mines ramping up more quickly than expected to full capacity after expansion projects. Examples of this are Lake Vermont, Yarrabee, Daunia and Middlemount.

5.2 Mine capacity overview

The variance becoming evident between actual year-to-date railings and previous fiscal 2014 forecasts is not due to any unexpected mine closures or openings. The list of coal mines in operation in Central Queensland in February 2014 was as envisaged in our forecast of last year, although the Collinsville

mine was idled from September 3013 through January 2014 due to industrial issues as the mine was transferred from contractor mining to owner-operations. Furthermore, our view on the development of new mines and on mine closures remains substantially unchanged from our previous forecast.

Only two new greenfield coal mines, Middlemount and Daunia, have been commissioned in the region over the past five years (excluding new mines that have been developed to replace mines nearby that are approaching reserve exhaustion: for example the replacement of Blair Athol by Clermont). Middlemount was commissioned late in fiscal 2011, and has already ramped up production from 1.9 million tonnes in fiscal 2013 to its capacity of 3.8 million tonnes. Daunia commenced production in early 2013, produced 0.95 million tonnes in fiscal 2013 and is on track to exceed its nominal capacity in fiscal 2014.

Three greenfield coal mines are currently under construction in the Central Queensland coal region: Caval Ridge, Grosvenor and Eagle Downs. Caval Ridge was listed as 96% complete in BHP Billiton's operational review published January 2014 and has a capacity of 5.5 million tonnes per year. Grosvenor and Eagle Downs are underground projects still in the relatively early stages of construction and with long lead times scheduled before full commissioning. Anglo American's latest schedule has Grosvenor commencing longwall production at the end of calendar 2016. These two projects are only expected to begin railing substantial tonnage towards the end of the UT4 forecast horizon.

With regard to greenfield projects yet to commence construction, Energy Economics still has production from the Drake, Byerwen and Springsure Creek projects factored into its four-year forecasts, however with regard to Byerwen and Springsure Creek only the initial ramp-up period of production is included, late in the forecast period.

We have also factored into our forecasts substantial mine expansions at the Collinsville, Caval Ridge (Stage 2), Rolleston, Cook and Baralaba mines, as well as numerous smaller mine capacity expansions.

Since our last forecast we have bought forward a resumption of mining at the idled Norwich Park mine to fiscal 2016 (from fiscal 2018). We have pushed back closure of the Newlands Northern underground mine from 2014 until 2017, with residual longwall panels now expected to be extracted at a slower production rate than previously estimated. Newlands opencast is expected to continue in operation through the forecast period (until reserve exhaustion in fiscal 2018) although at current coal prices early closure cannot be ruled out. We continue to assume that the small Eaglefield opencast operation will close in fiscal 2016 due to exhaustion of its reported coal reserves.

Our new forecasts assume that the Foxleigh Plains mine life extension project will not proceed and the Foxleigh mine will close in fiscal 2016; but it is noted that this change relies on informal reports that we have not been able to fully validate.

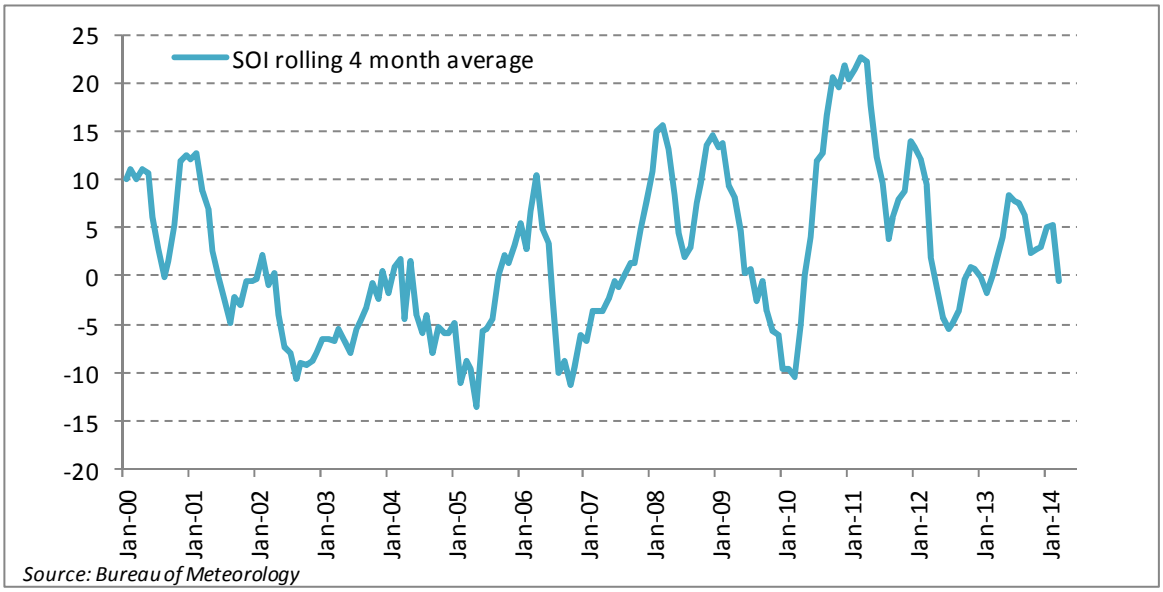
5.3 Wet season assumptions

As previously mentioned, our coal railings forecasts have been formulated assuming 'normal' wet seasons in Queensland. Railings may deviate considerably from forecast in abnormally wet or dry years; however we have included factors in our forecasts to represent the average impact of weather and other force majeure events on output. We have reviewed these factors in light of the very strong production performance from the regions mines over the past 11 months but have concluded they remain appropriate and have retained them largely unchanged. Forecasting inaccuracies in our 2013 report relate to issues with evaluating individual mine capacities, rather than with the default capacity utilisation factors.

The Southern Oscillation Index (graphed below) fell to - 13.3 in March 2014. Strongly negative values are associated with dryer El Niño weather patterns, whereas strongly positive Southern Oscillation Index levels are associated with La Niña weather patterns, as was the case in the disastrous 2011 wet season.

On 25 March 2014 the Australian Government Bureau of Meteorology wrote that "While the tropical Pacific Ocean remains El Niño–Southern Oscillation (ENSO) neutral, the chance of an El Niño occurring in 2014 has increased. The latest climate model survey by the Bureau shows that the tropical Pacific is likely to warm in the coming months, with most models showing sea surface temperatures reaching El Niño thresholds during the southern hemisphere winter."

Figure 4 Southern Oscillation Index



Source: Bureau of Meteorology

This indicates that dryer than normal conditions are likely to continue over the next six months. If dry conditions do persist, mine production levels are likely to remain high over the remainder of fiscal 2014 and into the early part of fiscal 2015.

5.4 Transport Infrastructure

Three ports provide ship-loading capacity for the Central Queensland Coal Region – Abbot Point, Hay Point and Gladstone. Port capacity and throughput are tabulated below. In both fiscal 2011 and 2012 the average capacity utilisation of the coal terminals at these ports was 60%, rising to 66% in fiscal 2013.

There are two port expansion projects currently under construction. The annual capacity of the Hay Point Coal Terminal is being expanded by 11 million tonnes, with commissioning now delayed until 2015, and stage one of the new Wiggins Island Coal Export Terminal at Gladstone is designed to provide 27 million tonnes of annual capacity in 2015.

The construction of the Wiggins Island Coal Export Terminal remains on schedule, with the consortium recently estimating that the first coal shipment from the terminal will take place in November 2014. Completion of commissioning is expected in March 2015. Our 2013 forecasts assumed significant WICET exports would not commence until ca. mid 2015, hence it is likely that the build-up in coal exports through WICET will start earlier than forecast. This is expected to only result in a transfer of forecast tonnage from the existing Gladstone coal terminals to WICET, rather than a change to the total coal exports through the Port of Gladstone.

Adding together the spare annual port capacity of 88 million tonnes that existed in fiscal 2013 and the new capacity currently being constructed, the region had 120 million tonnes of headroom for growth between fiscal 2013 and fiscal 2017. This is remains substantially above Energy Economics forecast of exports growth from the region, as well as being substantially above Aurizon Network's forecast of coal railing volumes from this region to the three ports.

Over the longer term, permit acquisition is underway for further coal terminal capacity expansions – the stage 2 development at Wiggins Island and the Dudgeon Point Coal Terminal project at the Port of Hay Point.

We have excluded from the table below the numerous proposed new coal terminals being planned for the Port of Abbot Point. The most advanced of these projects are designed primarily to service the opening up coal mining in the Galilee Basin, analysis of which is not included in the brief for this assignment. Insofar as these terminals would also be used to transport some coal from within the study area, the capacity calculations below represent a conservative case in terms of evaluating the adequacy of port capacity to cater for the forecast levels of coal railings.

There are comfortable margins between forecast railings and port throughput capacity at all three ports throughout the forecast period.

Table 6 Port capacity, throughput and utilisation

Year to June	2011	2012	2013	2014	2015	2016	2017
Capacity	**260**	**260**	**260**	**260**	**278**	**292**	**292**
Abbot Point *	50	50	50	50	50	50	50
Hay Point	129	129	129	129	140	140	140
- Dudgeon Point	-	-	-	-	-	-	-
- Dalrymple Bay	*85*	*85*	*85*	*85*	*85*	*85*	*85*
- Hay Point	*44*	*44*	*44*	*44*	*55*	*55*	*55*
Gladstone	81	81	81	81	88	102	102
- Wiggins Island	-	-	-	-	*7*	*27*	*27*
- RG Tanna	*75*	*75*	*75*	*75*	*75*	*75*	*75*
- Barney Point	*6*	*6*	*6*	*6*	*6*	-	-
Throughput	**156.1**	**156.2**	**171.6**	**201.7**	**195.7**	**201.2**	**215.0**
Abbot Point	15.1	13.6	17.7	24.7	26.8	31.0	32.9
Hay Point	87.8	82.9	96.5	108.0	103.4	101.1	107.1
Gladstone	53.2	59.8	57.3	69.0	65.5	69.1	75.0
Capacity Utilisation %	**60**	**60**	**66**	**78**	**70**	**69**	**74**
Abbot Point	30	27	35	49	54	62	66
Hay Point	68	64	75	84	74	72	77
Gladstone	66	74	71	85	75	68	74
Spare port capacity	**104**	**104**	**88**	**58**	**82**	**91**	**77**

*Source: Energy Economics. * Tabulated Abbot Point capacity is for the existing terminal only*