Submitter No.	1840	Issue Reference	1000 / 9000
Submitter Type	Council	TOR Category	Economy / Social (Workforce Profile)
Name	Barcaldine Regional Council	Relevant EIS Section	1.4.2

DETAILS OF THE ISSUE

3,500 construction jobs, 2,360 permanent employees, 70, 000 indirect flow through jobs.

Detailed information as to the specific impacts on the regional economy, particularly on local providers and suppliers and contractors is required. The local suppliers could possibly service only part of the predicted extent of the operations.

PROPONENT RESPONSE

An economic analysis of the project was completed as part of the EIS and included an assessment of regional economic impacts (see Appendix 24 of the EIS. In this report the 'Mine Catchment' encompasses Barcaldine Regional Council and Central Highlands Regional Council). It is acknowledged in the report that not all flow-on activity will be able to be serviced by the regional economy, and that some goods and services will need to be imported. Sections 5.1.1, 5.1.2, and 5.2.1 provide information on the level of activity that may be supported within the regional economy over various phases of the project. While acknowledging limitations in the capacity of local suppliers to service the project, Waratah Coal will give preference to local suppliers, and will provide support to improve the capacity of local suppliers to bid for project contracts. Refer to *SIMP*, Section 6.6, contained in *Appendices – Volume 2* of this SEIS.

Submitter No.	364	Issue Reference	1001
Submitter Type	Government	TOR Category	Economy
Name	DEEDI	Relevant EIS Section	Appendix 24. Waratah Coal – Economic Impact of China First Project – Waratah Coal AECgroup

DETAILS OF THE ISSUE

The consultant's report does not provide a full set of assumptions and methodology, and input data.

Additional information is required to develop a higher level of confidence in the specific regional and industry impacts reported in the study.

This information will help establish confidence in the reasonableness of assumptions of the 'with' and 'without' project cases. This will ensure that the impacts of the proposed project are clearly distinguished from on-going economic activity in the region.

Additional detail is requested on the assumptions and methodology, together with input data provided in the Consultant's report. This is specified in an attached technical paper to the EIS (see Attachment A of Appendix 24 of the EIS).

PROPONENT RESPONSE

The response for this submission is included in the following Issue Reference 1002.

Submitter No.	364	Issue Reference	1002
Submitter Type	Government	TOR Category	Economy
Name	DEEDI	Relevant EIS Section	Appendix 24 Waratah Coal – Economic Impact of China First Project – Waratah Coal AECgroup

DETAILS OF THE ISSUE

Submitter provided two and a half pages of specific and general comments on the model used.

In summary, the following information would be required to fully validate the economic impacts of the CGE modelling:

- Macro-economic assumptions used to set up the baseline scenario, which is the adjustment path of the economy in the absence of the project
- Model closure or economic environment used to simulate the impacts of the proposed project
- Details of the model database (i.e. the CGE core drawn from the base year input-output tables)
- Input data used to derive shocks to the model (e.g. to investment, output etc) that represent the direct impacts of the project and to derive any changes to model parameters (e.g. export demand elasticities)
- Project specific adjustments such as changes to model theory or equations that deal with the complexity of the project
- A full set of modelling results – represented as percentage deviations from baseline for all of the key variables. At present, only specific results are shown for the Queensland and regional economies, and
- Access to the model files to be able to replicate and test the assumptions used to set up the simulation.

PROPONENT RESPONSE

Model Assumptions:

- Source of supply assumptions are provided in Table 1.

Table 1. Source of Supply Assumptions

Project Component	Sourced From						Total
	Mine Catchment	Abbot Point Catchment	Broader Service Area	Rest of Qld	Rest of Australia	Imports	
Mine	36%	0%	21%	12%	2%	30%	**100%**
Port	0%	69%	8%	10%	2%	10%	**100%**
Rail	17%	17%	20%	7%	11%	27%	**100%**

- The assumed economic growth rates used in the baseline simulation are shown in Table 2. The four regions of Queensland were all assumed to experience the Queensland growth rate. Growth rates shown are in real terms.

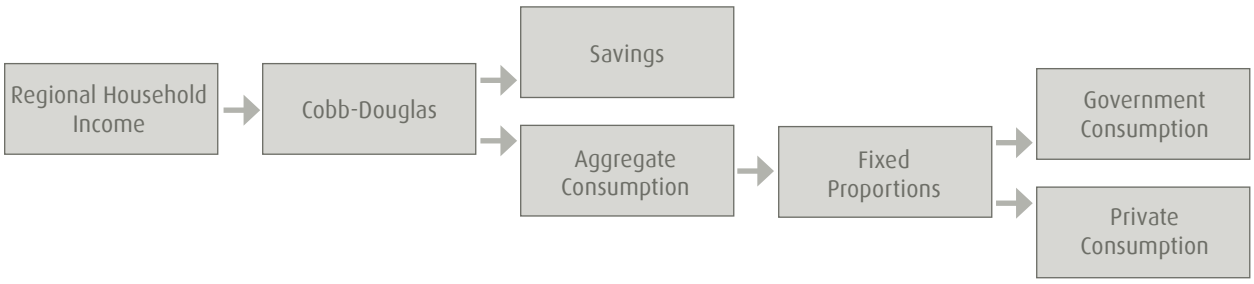
Table 1. Source of Supply Assumptions

Year	QLD	Rest of Australia	Australia	Year	QLD	Rest of Australia	Australia
2009-10	2.7	1.8	2.3	2023-24	3.3	2.7	2.9
2010-11	4.0	3.1	3.4	2024-25	3.4	2.7	2.9
2011-12	4.7	3.8	3.5	2025-26	3.4	2.6	2.9
2012-13	4.7	3.8	3.6	2026-27	3.3	2.5	2.9
2013-14	4.3	3.5	3.5	2027-28	3.2	2.5	2.9
2014-15	4.2	3.4	3.4	2028-29	3.2	2.4	2.9
2015-16	4.0	3.2	3.4	2029-30	3.2	2.4	2.9
2016-17	3.9	3.1	3.3	2030-31	3.2	2.4	2.9
2017-18	3.8	3.0	3.2	2031-32	3.1	2.4	2.9
2018-19	3.7	3.0	3.1	2032-33	3.1	2.4	2.9
2019-20	3.6	2.9	3.0	2033-34	3.1	2.3	2.9
2020-21	3.5	2.8	3.0	2034-35	3.1	2.3	2.9
2021-22	3.5	2.8	3.0	2035-36	3.0	2.3	2.9
2022-23	3.4	2.7	3.0	2036-37	3.0	2.2	2.9

- The FIFO workforce has been treated as resident in its source region but providing labour services in the region in which it works. Therefore, earnings by FIFO workers add to household consumption in the region from which they are sourced.
- The following assumptions were used to determine how profits were split:
  - 30% company tax
  - Fully Queensland owned company
  - Royalties are spread amongst the four Queensland regions based on population shares
  - After tax profits are spread amongst the four Queensland regions based on population shares, and
  - Company tax is spread amongst the five Australian regions based on population shares.

Model Closure:

- In the Tasman Global model, regional income is allocated to private consumption, government consumption and savings in the manner shown below:



- Therefore, the Tasman Global modelling framework does not require a "government budget constraint" as is the case in other models.

- For the modeling of this project the labour market approach is as shown in the following box:

> *Tasman Global* has a detailed representation of the Australian labour market which has been designed to capture:
>
> - different occupations
> - changes to participation rates (or average hours worked) due to changes in real wages
> - changes to unemployment rates due to changes in labour demand
> - limited substitution between occupations by the firms demanding labour and by the individuals supplying labour, and
> - limited labour mobility between states/regions.
>
> *Tasman Global* recognises 97 different occupations within Australia. The firms who hire labour are provided with some limited scope to change between these 97 labour types as the relative real wage between them changes. Similarly, the individuals supplying labour have a limited ability to change occupations in response to the changing relative real wage between occupations. Finally, as the real wage for a given occupation rises in one state/region relative to other states, workers are given some ability to respond by shifting their location.
>
> The labour market structure of *Tasman Global* allows the supply and demand at the occupational level do adjust, but within limits.
>
> Labour supply in *Tasman Global* is presented as a three stage process:
>
> 1. labour makes itself available to the workforce based on movements in the real wage and the unemployment rate
> 2. labour chooses between occupations in a state based on relative real wages within the state, and
> 3. labour of a given occupation chooses in which state to locate based on movements in the relative real wage for that occupation between states.
>
> By default, *Tasman Global*, like all general equilibrium models, assumes that markets clear. Therefore, overall, supply and demand for different occupations will equate (as is the case in other markets in the model).

Model Database:

- The *Tasman Global* database is based on the GTAP 7 database, which represents the world economy in 2004. At the time the simulations were undertaken this was the most up-to-date database available from GTAP.
- State and regional databases are estimated from available data sources. When developing regional databases 2006 census data is often heavily relied upon out of necessity.

Input Data Used to Derive Shocks:

- The model used, Tasman Global, utilises the GTAP global database; hence, export elasticities as such are not used. Rather Armington elasticities matter and those used are derived from the standard GTAP database.
- Project specific model drivers are described in section 3 of Appendix 24 of the EIS.

Project Specific Adjustments:

- This project represents a fairly standard application of *Tasman Global*, and so no additional equation development was required.

Other Relevant Modelling Details:

- The *Tasman Global* model aggregates debt for each modeled region as the difference between savings and investment. The project therefore adds to debt which is paid on an "interest only" basis. The debt was added to each of the four Queensland regions according to their population shares (i.e. debt was spread amongst Queenslanders in the same manner as profits).
- The project is modeled as a new industry in the database. All supplies to the project, both in construction and in operation, are based on a series of new industries in the database that are single sourced. The project cost structure in the database consumes each of these input industries in the ratios assumed for source of supply. Therefore, no "twist" variable is needed because the industry structure and source of supply structure is embedded in the database.
- This approach is also used to specify FIFO workers by source. The FIFO workers come "bundled" with goods and services from their source location, which for this project is Rest of Queensland (ROQ).

Full Set of Modelling Results:

A full set of modelling results has been provided to DEEDI. The modelling results are 'Commercial in Confidence' so will not be made available for public review.

For completeness, additional modelling has been undertaken as part of the EIS supplementary examining the implications of a similar agreement to temporarily import overseas workers during construction as was approved for Hancock Prospecting's Roy Hill project in WA. In such a scenario, the effects of a draw down on other sectors would be considerably smaller during construction, resulting in higher net increases in total employment over the four years of construction in Queensland and Australia (as outlined in Table 3). These estimates are based on place of work, and include jobs filled by imported overseas labour.

Table 3. Original and Revised Modelling results

Year	QLD	Australia
Original Modelling Results (Assuming Existing Policy on Overseas Labour)		
Year 1	720	553
Year 2	2,681	2,010
Year 3	5,524	4,274
Year 4	6,762	5,603
Revised Modelling Results (Allowing Additional Imported Overseas Labour)		
Year 1	991	873
Year 2	3,595	3,103
Year 3	7,425	6,529
Year 4	7,984	7,039

Source: Prime Research (unpublished).

Access to Model Files:

Tasman Global is a privately owned simulation model and access to these files cannot be provided.

Submitter No.	364	Issue Reference	1003
Submitter Type	Government	TOR Category	Economy
Name	DEEDI	Relevant EIS Section	Appendix 24 Waratah Coal – Economic Impact of China First Project – Waratah Coal AECgroup

DETAILS OF THE ISSUE

The consultant's report does not provide a full set of results from the model simulation.

A full set of results is required to understand how the Queensland, Regional Queensland economies and Rest of Australia economies change as a consequence of the project.

Additional detailed modelling results will help establish the level of confidence in State and regional impacts reported. This will improve the quality of specific industry and regional policy responses.

The modelling results should be provided for all model regions including the rest of Australia.

PROPONENT RESPONSE

A full set of modelling results has been provided to DEEDI. The modelling results are 'Commercial in Confidence' so will not be made available for public review.

Submitter No.	565	Issue Reference	1004
Submitter Type	Individual	TOR Category	Economy
Name	Name Withheld	Relevant EIS Section	

DETAILS OF THE ISSUE

Tourism potential being refused.

PROPONENT RESPONSE

The region is not currently a major attractor of tourism activity and is unlikely to provide significant tourism potential in the future. The location's key tourism market is nature based visitors, which will also be catered to by Waratah Coal's offset strategy. As such, any impacts on the tourism potential of the area is also expected to be offset.

Submitter No.	877	Issue Reference	1005
Submitter Type	Individual	TOR Category	Economy
Name	Name Withheld	Relevant EIS Section	

DETAILS OF THE ISSUE

Two speed economy. Impacts on social and cultural. Mine workers vs. agricultural workers.

PROPONENT RESPONSE

Comments from this submitter relate to the potential social ramifications of high income mining workers moving to or staying in the region, potentially leading to income disparity and disadvantage. These issues are addressed within the Social Impact Management Plan. Detailed strategies have been outlined within the *SIMP* for the development of Alpha and Bowen (see *SIMP*, Sections 5 & 6, contained in *Appendices – Volume 2* of this SEIS). The recommendations to contribute to infrastructure and community development funds, managed by the BRC and WRC, will contribute substantially towards improved social capital. The expected population growth, and Waratah's commitment to procure local goods and services when possible, will provide substantial opportunities for local businesses. Monitoring strategies are outlined in the *SIMP*, Section 8, contained in *Appendices – Volume 2* of this SEIS.

Submitter No.	786	Issue Reference	1006
Submitter Type	NGO	TOR Category	Economy
Name	Greenpeace Australia	Relevant EIS Section	

DETAILS OF THE ISSUE

- Submitter believes that the economic benefits of the project are overstated as the estimates of tax revenue are based on an AUD$ exchange rate of US$0.80 which overstates the likely royalties to be received by the State Government,
- Question why it is considered beneficial to create new jobs in an industry and region that continues to experience skills shortages,
- Project will cause loss of jobs to other industries (most notably the manufacturing sector), and
- EIS does not address the wider negative impacts resulting in upward pressure on the exchange rate and interest rates.

PROPONENT RESPONSE

Royalties:

The royalty revenues are based off an assumed coal price of AUD $115 per tonne. Coal will be sold on a contractual basis. The average coal spot price through Newcastle between May 2010 and May 2012 averaged approximately US$115 to US$120 per tonne[1], while the exchange rate averaged around parity over this period[2]. Predicting future exchange rates and coal prices over the next 20–30 years is not possible, but basing the average revenue on approximately the average price for the last two years is a reasonable assumption.

1 World Bank (2012). *GEM Commodities: Coal, Australian thermal coal, 12000- btu/pound, less than 1% sulfur, 14% ash, FOB Newcastle/Port Kembla, US Dollars per Metric Ton*. Available from: ***http://data.worldbank.org/data-catalog/commodity-price-data***.

2 RBA (2012). *Statistical Table F11 – Exchange Rates*. Available from: ***http://www.rba.gov.au/statistics/tables/index.html***.

Where the price received is less than AUD$115 per tonne, royalty revenues will be less than those outlined in Appendix 24 of the EIS. However, this would not be expected to result in a significant change in the modelled outcomes of economic impacts.

The analysis did not include potential Australian Government royalties flowing from the Mineral Resource Rent Tax (MRRT) and Carbon Tax. The exclusion of these taxes suggests the tax estimates provided will likely understate the total tax revenues generated by the project.

Benefits of New Jobs:

The economic impact assessment outlines that the Galilee Coal Project will result in a net increase in jobs in Queensland and the regional economy above what would otherwise be expected without the project. The generation of new jobs, both directly and indirectly, provides incomes for Queenslanders and other Australians. Significantly, mining jobs are also higher paying on average than most other industries, providing an increase in average incomes of Queenslanders and Australians. Provision of incomes to households and families results in a tangible benefit, in particular against a current backdrop of economic slowdown, job losses, and rising costs of living.

The Galilee Coal Project is also in line with stated Queensland Government commitments. The Queensland Government has outlined a commitment to creating jobs and developing the Queensland economy across four "pillars" of tourism, agriculture, resources and construction[3], and this project will directly assist in meeting this commitment.

Loss of Jobs in Other Industries:

It is acknowledged in the Economic Impact Assessment (Appendix 24 of the EIS) that some industries may experience a decline in output and labour relative to what would be expected to occur without the project occurring. However, the following key points should be recognised:

- The project is expected to result in a net increase in jobs overall, and higher levels of economic output, and
- The project results in a reallocation of resources to higher paying industries that provide higher value to the Australian economy.

So while some sectors may experience a decline in activity relative to what might otherwise be expected to occur without the project, overall the Queensland and Australian economy is better off.

It should also be recognised the modelling outcomes present expected outcomes ***relative to a base case***, not a comparison to the number of jobs today. They represent a change from what could otherwise be expected without the project. A loss of 2,215 manufacturing jobs relative to what would be expected to occur without the project does not infer 2,215 manufacturing workers will lose their jobs, but that demand for labour from the project will result in a higher proportion of labour shifting towards mining jobs than would otherwise be expected to occur.

Impacts on Exchange Rates and Interest Rates:

Exchange rates and interest rates are influenced by a significant range of factors. Understanding the ramifications and effect of one project on exchange rates and interest rates is not appropriate. Sections 5.1.2.2 and 5.6 in Appendix 24 of the EIS include discussion of the potential adverse ramifications of higher exchange rates on sectors that operate in global markets. Conversely, those sectors (and households) that rely on imported goods will realise a benefit in terms of cost savings for goods and services.

3 LNP (2012). *The LNP's clear plan for Queensland and Queensland families*. Available from: ***http://lnp.org.au/news/leader-of-the-lnp/the-lnps-clear-plan-for-queensland-and-queensland-families***.

Submitter No.	415	Issue Reference:	1007
Submitter Type	Individual	TOR Category	Economy
Name	Name Withheld	Relevant EIS Section	

DETAILS OF THE ISSUE

Submitter lists a number of potential negative impacts of the project such as:

- Coal exports raising the price of the Australian dollar, and the impacts on agriculture and tourism
- Opportunity cost of diverting human and financial resources away from developing renewable energy sourced projects
- Cost to Australia of putting so much of its energies into non-renewable products with so little added value
- Cost to human health from burning coal
- Cost to future taxpayers of supporting mining dependent communties once the resource is exhausted, and
- Cost to taxpayers if mine is flooded.

EIS fails to ask whether the project is needed by any sector of the community

PROPONENT RESPONSE

Exchange Rate and Impact on Agriculture and Tourism:

The Economic Impact Assessment acknowledges the potential adverse effects of the project on some sectors (relative to what would be expected without the project) due to factors such as a draw of labour and support for the Australian dollar. This includes potential impacts to trade exposed sectors such as manufacturing, agriculture and tourism.

Opportunity Cost:

The project is not a mutually exclusive project. Research into "clean, affordable" renewable energy sources can be undertaken as well as this project. Resources are not being "diverted away" from this research. In fact, the project will generate revenues for the Australian Government through the Carbon Tax, which is designed in part to encourage investment in cleaner energy technologies.

Cost of Non-Renewable Products with Little Added Value:

The Economic Impact Assessment examines the direct and flow-on benefits (and costs) of the project to Australia. The value of coal resources, while down from the highs of mid-2008, remain at historically high levels due to strong global demand. This demand is projected to remain high over the medium to long term. Given current global economic uncertainty, the market for coal provides a significant opportunity for Queensland and Australia to maintain domestic economic growth and create jobs. Coal mining provides a significant level of jobs, both directly and indirectly, to the Australian economy.

Cost to Human Health:

This project will not materially affect the final demand for coal globally, as such it will not result in any additional burning of coal in Australia or globally. If Australia does not produce the coal for export, than importing countries will purchase the coal from elsewhere, and Australia will miss out on the benefits from exporting a high value product.

Costs to Future Taxpayers:

The Queensland Government's Royalties for Regions program[4] is designed to provide long term benefits to the communities in which resource projects are located, based on the revenue generated by these resource projects.

Costs to Taxpayers if Mine Flooded:

The main cost to taxpayers if a mine is flooded is in terms of lost Government revenue. Without royalty revenues, the tax requirement for Queenslanders would by necessity be higher to compensate for the hole in State Government revenues. This is revenue that the Government would not even have to lose if the mine is not developed. Regardless, this mine is not subject to the same flooding considerations as mines such as Ensham, being located at the top of it's catchment and being designed to withstand a flood with an Average Recurrance Interval of 1000 years; so it is considered highly unlikely that it would be flooded.

Is the Project Needed?:

This project is not being proposed or developed out of need. It is being driven by market forces indicating demand for the coal resources will generate an economic return. The project will deliver as a result considerable economic benefits to Queensland and Australia. This is the scenario faced by almost all commercial projects, across all industries and businesses.

Submitter No.	**1840**	Issue Reference:	**1008**
Submitter Type	Council	TOR Category	**Economy**
Name	**Barcaldine Regional Council**	Relevant EIS Section	18. Economic Impact Assessment

DETAILS OF THE ISSUE

Further exploration of the economic impacts is needed, particularly based on higher level residency within Alpha and Jericho and the contribution to the local economy as per consultations with proponent.

PROPONENT RESPONSE

Appendix 24 of the EIS presents a comprehensive assessment of the economic impacts anticipated. It includes consideration of the contribution to the local economy from project related expenditures, as well as ramifications of increased local spend from workers and people moving to the region over time.

4 LNP (2012). *The LNP's clear plan for Queensland and Queensland families*. Available from: ***http://lnp.org.au/news/leader-of-the-lnp/the-lnps-clear-plan-for-queensland-and-queensland-families.***

Submitter No.	350	Issue Reference:	1009 / 9100 / 9119
Submitter Type	NGO	TOR Category	Social (Workforce Profile) / **Economy**
Name	**The Australia Institute**	Relevant EIS Section	p xii, p xvi, p xxv, p 24, p 52, p 31, p 60, p 62, p 36, p viii, p xxii, p 51, p 57, appendix 23 p xviii, p 2,

DETAILS OF THE ISSUE

- Net economic benefits will be small
- potential loss of manufacturing jobs; potential of the project to impact upon local businesses and agriculture
- increase in coal exports may assist in maintaining the value of the australian dollar
- adding more demand to an already booming sector may add fuel to wage and price increases
- no assessment of the projects impact on the CPI
- project may lead to increase in interest rates
- no analysis of the impact of the project on net exports, and
- the estimates of tax revenue in the economic assessment are based on an exchange rate of $US0.80c.

PROPONENT RESPONSE

Net Economic Benefits:

The Economic Impact Assessment of the Galilee Coal Project conducted by AEC*group* acknowledges a range of potential adverse implications of the project on segments of the broader Queensland and Australian economy. However, the assertion that the economic benefits of the project will be small is not supported by AEC*group*'s analysis.

Table 5.1 on page 24 of the Economic Impact Assessment outlines the following:

- The three year construction phase of the project will result in an average annual increase in total industry output in Queensland of $231.9 million compared to what would otherwise be expected if the project does not proceed.
- During the first five years of operation, the project is estimated to generate an additional $5.2 billion in total industry output per annum on average compared to what would be achieved without the project. Of this, $4.5 billion is estimated to accrue the mining industry. That is, on a net basis, the project is estimated to result in $700 million per annum more output generated in Queensland overall, not including the impacts to mining output. This includes consideration of a draw down on some sectors of the economy, most notably manufacturing. This net increase is driven by additional demand for a range of goods and services in the domestic economy generated by the project and its workforce.
- Over time, as the Queensland economy rebalances, the net increase in economic activity is expected to rise (compared to the without project scenario), as adverse effects on other segments of the economy are alleviated by natural growth in labour supply.

Similar effects are estimated for employment in Tables 5.5 and 5.6 (pages 32 and 34) of the Economic Impact Assessment.

Impacts to Manufacturing, Local Business and Agriculture:

The Economic Impact Assessment acknowledges the potential adverse effects of the project on some sectors (relative to what would be expected without the project) due to factors such as a draw of labour and support for the Australian dollar. The Australian Institute has recounted AEC*group*'s analysis of these effects without considering or mentioning

the significant net increase in economic activity resulting from the project outlined above, or the fact that some other sectors of the economy not directly linked to the project will record significant increases in activity that would otherwise not be expected.

Wages and Inflation:

The Economic Impact Assessment acknowledges the potential for the project to place upward pressure on wages and inflation.

Effects on CPI:

The Economic Impact Assessment acknowledges the potential for the project to place upward pressure on inflation. The report acknowledges this could lead to higher input costs for business and households. Quantifying the effects of the project on CPI is beyond the reasonable scope of the assessment.

Effects on Interest Rates:

RBA decisions on interest rate movements are driven by a significant range of factors. Understanding the ramifications of one project on interest rates is not possible. In general, the RBA has a stated goal to maintain inflation at between 2%-3% per annum. Costs of goods and services are more likely to be affected in the short to medium term by factors such as slowing global economic growth and government policy (e.g. the Carbon Tax). Suggesting that it is "likely" that the project will be linked to an increase in interest rates is not supported. It is possible, but not likely.

As with all other comments by the Australian Institute, they have only focused on the negatives of high interest rates. It should be recognised that low interest rates also provide negative outcomes, in particular as a result of reduced levels of savings and interest on savings. Typically, low interest rates are a reflection of a slow or slowing economy. The RBA has recently been cutting the cash rate in response to a slowing domestic economy.

Net Exports:

Analysis of the project's impacts on exports and the balance of trade is provided in Section 5.6 of the Economic Impact Assessment.

Tax Revenue:

The royalty revenues are based off an assumed coal price of AUD$115 per tonne. Coal will be sold on a contractual basis. The average coal spot price through Newcastle between May 2010 and May 2012 averaged approximately US$115 to US$120 per tonne[5], while the exchange rate averaged around parity over this period[6]. Predicting future exchange rates and coal prices over the next 20–30 years is not possible, but basing the average revenue on approximately the average price for the last two years is a reasonable assumption.

Where the price received is less than AUD$115 per tonne, royalty revenues will be less than those outlined in Appendix 24. However, this would not be expected to result in a significant change in the modelled outcomes of economic impacts.

The analysis did not include potential Australian Government royalties flowing from the Mineral Resource Rent Tax (MRRT) and Carbon Tax. The exclusion of these taxes suggests the tax estimates provided will likely understate the total tax revenues generated by the project.

5 World Bank (2012). *GEM Commodities: Coal, Australian thermal coal, 12000- btu/pound, less than 1% sulfur, 14% ash, FOB Newcastle/Port Kembla, US Dollars per Metric Ton.* Available from: ***http://data.worldbank.org/data-catalog/commodity-price-data***.

6 RBA (2012). *Statistical Table F11 – Exchange Rates*. Available from: .

Submitter No.	752	Issue Reference:	1010 / 9079
Submitter Type	NGO	TOR Category	**Economy** / Social (Workforce Profile)
Name	**AMWU**	Relevant EIS Section	

DETAILS OF THE ISSUE

- Project may impact on manufacturing sector, and
- Assumptions regarding potential manufacturing job losses are not fully explained in the EIS.

PROPONENT RESPONSE

While the AMWU are correct in indicating the Economic Impact Assessment identifies the manufacturing sector may be adversely affected by the project, the quoted loss of 12,000 jobs in the next eight years is a misinterpretation of the modelled results.

With regards to the impacts on manufacturing outlined in the report:

- Firstly it is important to note the modelling provides a picture of the future economy with the project compared to a scenario of what would otherwise be expected to happen (rather than comparing it to the existing economy). The "loss" of, for example, 2,215 jobs per annum between 2013/14 and 2017/18 does not mean 2,215 manufacturing jobs currently held today will be lost. Rather, with the Galilee Coal Project, the 'future' economy will move towards a higher level of mining employment than would otherwise be observed without the project. In the 'with project' scenario, manufacturing does not grow as rapidly as would be the case in the without project scenario, due to the resource (labour) constraints and the relative transferability of skills between the manufacturing sector and mining. The assumption here being that employment skills between mining and manufacturing are more easily transferrable than, say, between mining and professional services – though it should be noted this is only an assumption for modelling purposes and the actual effects and interplay between industries may be slightly different.
- The modelled estimates do not represent cumulative losses, they are simply the annual difference between the 'with' and 'without project' scenarios. That is, in 2013/14, the manufacturing sector is estimated to record 2,215 less jobs compared to what would be expected to occur without the project. In 2014/15, there is not a loss of another 2,215 jobs, rather the initial reduction from the base case carries forward to this year (i.e. there are still 2,215 less jobs than what would otherwise be expected).
- It should also be noted that over time the divergence between the 'with' and 'without project' effects on manufacturing declines. That is, the average difference of 2,215 between 2013/14 and 2017/18 reduces to an average of 1,666 between 2018/19 and 2036/37. This reflects that over time the economy will likely structure towards anticipated long term growth patterns with or without the project – the Galilee Coal Project is providing a boost to the economy over its life time but in consideration of labour requirements will result in some restructure compared to what otherwise would occur without the project.
  - The results presented in the report only outline the average annual impact over each time period. In fact, when examining modelled impacts on an annual basis, the impact on manufacturing trends downward each year.
- The modelling assumptions used play a role in the quantum of the estimated impacts from modelling. The modelling, in line with Queensland Treasury standard assumptions, reflects a constrained labour market and continuation of existing migration policy (i.e. assumes a relatively low level of un- or under-utilised labour (i.e. low unemployment) and a constrained labour mobility assumption (i.e. labour will move between industries and regions based on wage rates, with those industries that have a higher capacity to pay being more likely to secure labour)). As a result, the future labour pool does not change between the with and without project scenario, meaning labour must be secured from alternative uses (in this case, manufacturing is the industry modelled to be the hardest hit).

Submitter No.	364	Issue Reference:	1011 / 17167
Submitter Type	Govt	TOR Category	**Economy** / Project Description
Name	**DEEDI (Resource Planning, Geological Survey of Qld)**	Relevant EIS Section	Volume 3, Rail (Chapter 17 – Economic Impact Statement): 17.4.1 – Impacts on Industry

DETAILS OF THE ISSUE

Existing quarries are proposed to be used to source construction materials. The impact on extractive industry and the community of the potential depletion of limited extractive resources is poorly addressed by the draft EIS.

The draft EIS should discuss the potential impact on the normal supply/demand of extractive resources in the regions impacted by the project, both during and after rail line construction, including any mitigation measures

PROPONENT RESPONSE

Waratah Coal intends to use a combination of new quarries and existing quarries to source its extractive materials for the project construction. A total of 29 potential quarry sites and 24 potential sand sites have been identified along the length of the corridor during a geological survey. Discussions have also been held with existing quarry operators in central west Queensland and potential future quarry operators around Bowen for the production of rock and rail ballast. Waratah Coal does not expect any of its extractive requirements to affect in any way the ability of existing and future quarry customers to have their ongoing quantity requirements satisfied. Waratah Coal expects that the production of new quarries and extractive sites will actually assist the community and other users by having more sites available and at a competitive price particularly where the upfront development costs have been met by Waratah Coal during the execution of this project.

The quantity of extractive material required by Waratah Coal is minor compared with the potential sources available and whilst the extractive resources are considered to be an important resource, the quantities required by Waratah Coal does not place that industry under any adverse risks. The final quantities of sand and borrow material will depend on final designs and discussions with DERM Forest Products will continue, however, quantities required for the project are currently estimated at rail ballast, approximately 1 million cubic metres (Refer to EIS Volume 3, Chapter 1, Table 4 on page 26); aggregate, 90,000 cubic metres; and sand, 45,000 cubic metres.

Practically, there is an expectation that only one railway line will be constructed, with connecting spur lines to all other Galilee Basin mines, which are expected to be constructed during different time periods. This should result in an even demand for quarry material. Whilst the demand overall will be high, the total available supply well exceeds the forecast demand.

It is acknowledged that potential offset areas may include areas which have conflicting land uses. Waratah Coal commits to liasing with the Forest Products Group of DAFF to ensure this does not occur.

Submitter No.	779	Issue Reference:	1012
Submitter Type	Individuals	TOR Category	**Economy**
Name	**Names withheld**	Relevant EIS Section	Appendix 24. Waratah Coal – Economic Impact of China First Project – Waratah Coal AEC Group

DETAILS OF THE ISSUE

Fifteen page study undertaken by Economists at Large on behalf of Bimblebox Nature Refuge with specific and general comments on the Economic Impact Assessment

PROPONENT RESPONSE

Economists at Large present summary discussions responding to key findings outlined in the executive summary of AEC*group*'s Economic Impact Assessment of the Galilee Coal Project (Appendix 24 of the EIS). A number of issues are raised in response to each key finding. These issues are outlined in Table 4, along with a response to each.

Table 4. Issues Raised by Economists at Large and Reponses

Issue	Response
Key Finding 1	
Benefits accruing to non-residents should not be included in the assessment of economic benefits	AEC*group* agree with this statement. The proponent is 100% Australian owned and as such no overseas repatriation of profits is required. The extraction of coal for export markets provides revenue to a privately owned Australian company. The modeling does include the repatriation of fly-in-fly-out employee incomes to their place of origin. Additional details regarding this modelling assumption are provided in response to submission 364 from DEEDI (Issue References 1001 to 1003 in this section).
Deleterious impacts on industry from support for the Australian dollar/ exchange rates	This issue is identified and addressed in section 5.1.2.2 of the Economic Impact Assessment of the Galilee Coal Project EIS (Appendix 24, page 31).
Key Findings 2 & 3	
Industry output is not an indicator of economic welfare	AEC*group* agree with this statement. Output is a measure of economic activity, not economic welfare. This is in keeping with the premise of the assessment, which is an economic impact assessment, not an economic welfare assessment.
Activity generated by the Galilee Coal Project takes place at the expense of output elsewhere in Australia. At a national level, there may be very little increase in output	Economists at Large assertion that output generated by this project will result in some draw of resources from other activities and regions (due to resource constraints) is clearly outlined in the Economic Impact Assessment. However, the assertion that the project results in only a small increase in output at the national level is not supported by AEC*group*'s report.
Key Finding 4	
Little detail provided on how local business and industry may be supported	Potential benefits to local business through demand generated by the project is outlined in the Economic Impact Assessment (EIS Appendix 24, section 5.1.2.1). Additional detail of how local business will be supported by this project will be included in the Local Industry Purchasing Plan (LIPP).
Key Finding 5	
Draw of resources will adversely affect some industries	This is a finding outlined in the Economic Impact Assessment.
Key Findings 6 & 8	
Net employment increase disguises loss in some industries	The Economic Impact Assessment is very clear that the project will result in a draw of labour from other industries. Refer in particular to Tables 5.5 and 5.6.
The relationship between royalty payment/ tax revenues and employment is unclear	Additional detail regarding modelling assumptions is provided in response to submission 364 from DEEDI (Issue References 1001 to 1003 in this section).
Decline in unemployment does not necessarily follow from the increase in jobs	Section 5.2.4 (EIS Appendix 24) clearly states that it is likely that some jobs will be filled by currently unemployed persons. It is also clearly stated that these people do not need to work directly on the project, but could in fact back-fill vacated positions elsewhere in the economy. 50% of the net additional employment positions being taken by unemployed persons is provided for illustrative purposes only, and is not described as an expectation.

EIS claims that "an additional 70,000 indirect jobs" will be generated by the project are not supported by the EIA	Economists at Large are correct that this is a misinterpretation in the EIS executive summary. Waratah Coal acknowledges this error. Annual impacts depicted in the Economic Impact Assessment are not cumulative and represent the deviation from the base case in any given year.
Key Finding 7	
Skills development will only occur if sufficient government coercion is applied and shouldn't be considered an impact of the project	Section 5.2.3 (EIS Appendix 24) outlines that Waratah Coal will implement strategies to develop required skills in the local region. Where these strategies are implemented, the project will provide a lift in the skills base.
Key Findings 9 & 10	
Household incomes will not be distributed equally	This is described in section 5.5 of the Economic Impact Assessment (EIS Appendix 24).
Little examination of impacts on costs of living outside of housing affordability	The project provides an estimate of the impact on real wages in section 5.3 (EIS Appendix 24), which is equivalent to the increase in wages less the increase in inflation (or increase in costs of food, fuel, clothing, etc).
Key Finding 11	
Estimate of government revenues does not incorporate government subsidies to mining	The estimates of government revenue impacts are based on historic benchmarks of government revenues compared to industry output. As such, they implicitly incorporate any forms of subsidies, etc., that act to reduce the level of tax paid by the industry, including those outlined by Economists at Large.
Key Finding 12	
Difficulty in identifying benefits from provision of infrastructure	As outlined in the Economic Impact Assessment (EIS Appendix 24, page 56): "Waratah Coal will invest in developing utilities infrastructure to support the project, for example electricity, water and telecommunications (in particular fibre-optic), which will provide benefits to the entire Study Area beyond the direct operations of the mine, by improving regional business capacity and competitiveness. Waratah Coal will also invest in improving the local road networks and will develop or upgrade an airstrip, further improving access to the region. Also from pg. 56-57: "Rail, port and other support infrastructure developed for the China First Project will be accessible by third parties, which will 'open' the abundant high quality resources available in the Galilee Basin for future development, including coal and CSG, by providing base support infrastructure and reducing hurdle rates for future resource development. This may allow some smaller operations to be commercially viable in the future."
Cost Benefit Analysis (CBA)	
A CBA is required to identify if the project is in the interest of the state	As outlined by Economists at Large, a CBA is not requested in the TOR. The purpose of the economic impact assessment is to identify and assess potential impacts of the project (both beneficial and adverse), not to identify whether the project provides a net benefit to the state (project appraisal).

Submitter No.	417	Issue Reference:	4037
Submitter Type	Council	TOR Category	Cumulative Impacts / **Economy** / Social
Name	**Isaac Regional Council**	Relevant EIS Section	

DETAILS OF THE ISSUE

The EIS needs to reflect the cumulative impacts of numerous proposed mining operations in the vicinity with a focus on the triple bottom line being economic, environmental and social outcomes. There needs to be action taken on a broad spectrum cumulative study contributed to by the mining industry, which establishes the base line effects being experienced by the Rural and Urban Community of Isaac Regional Council.

PROPONENT RESPONSE

An updated Cumulative Impact Assessment has been undertaken. See the *Updated Cumulative Impact Assessment* contained in the *Appendices – Volume 2* of this SEIS.

Submitter No.	1840	Issue Reference:	4117
Submitter Type	Council	TOR Category	Social / **Economy** / Transport / Waste
Name	**Barcaldine Regional Council**	Relevant EIS Section	3.1.17

DETAILS OF THE ISSUE

It is expected that the townships of Jericho and Alpha will expand to provide services associated with the mine and any increase in the local population which services the mine site.' What will be the cumulative effects on the towns from all f the proposed developments. Including the following:

- Increase demands on local transport network
- Increase demand on local sewerage systems
- Increase demand on local waste management system, and
- Increase demand on all essential services.

Capacity of the local services may be compromised with the cumulative effects of other proposals.

PROPONENT RESPONSE

As described in the *SIMP* (see *SIMP* in *Appendices – Volume 2* of this SEIS), Waratah Coal would prefer to address the cumulative social and economic impacts by using the proposed Galilee Basin Cumulative Social Impact Assessment (CSIA) Rountable. It is expected that this forum will address the impacts of increased demand on essential services.

With regards to sewerage and waste the demands on sewerage and waste of the project have been investigated and they are summarised below:

- There are five Barcaldine Regional Council (BRC) waste management facilities, at Alpha, Aramac, Barcaldine, Jericho and Muttaburra, with the mine site located closest to the Alpha facility. All facilities accept general municipal waste, with the Barcaldine landfill also accepting regulated waste. Waste oil is accepted at the BRC Depot in Barcaldine. There are no transfer stations within the BRC.

- The project is expected to generate approximately 217,000 m^3 of waste across the 34-year mine life, including the construction, operation and decommissioning phases. A landfill facility will be constructed on-site to accept all general waste. Regulated waste will require transportation to the Barcaldine landfill for treatment, while all recyclable material will be transported to off-site facilities via licensed contractors.
- The project may indirectly contribute to the increased demand on the local sewerage and waste management systems. The majority of the mine workforce will be housed in purpose-built accommodation on the mining lease, which will be serviced by package sewage treatment facilities.
- Some contractors are expected to establish a base in Alpha or Jericho – if the workforces of these contractors reside in the townships, this will increase the overall level of sewage and domestic waste produced by the town.

The overall effects and mitigation measures will be determined during the detailed technical studies being undertaken, and during development of the EM Plan, as well as through negotiations and discussions with relevant stakeholders.

Submitter No.	**1840**	Issue Reference:	**17014**
Submitter Type	Council	TOR Category	Cumulative Impacts / Social / **Economy**
Name	**Barcaldine Regional Council**	Relevant EIS Section	1.8

DETAILS OF THE ISSUE

The EIS process – " ... the nature and extent of potential direct and indirect environment, social, and economic impacts..." Please provide the adequate assessment data so that the impacts can be assessed. Particularly, groundwater, hydraulic studies, availability of offset prioritised areas, extent of soil impacts on potential land form.

PROPONENT RESPONSE

A revised Cumulative Impact Assessment has been undertaken. See the *Updated Cumulative Impact Assessment* contained in the *Appendices – Volume 2* of this SEIS.