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Our Ref: GB\6953

Genevieve Seed
A/Team Leader
Resource Assessments
Department of Planning & Environment
GPO Box 39
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Dear Gen,

RE: Rix's Creek Mine CBA

Thanks for the opportunity to comment on the main differences between the two analyses of the Rix's Creek Continuation Project conducted by KPMG in 2015 and 2018.

First, and importantly, it should be stressed that the two analyses are not directly comparable for a number of reasons, including:

- The relevant time period and base case (counterfactual to the project going ahead) have changed to reflect the acquisition of neighbouring sites by the Bloomfield Group.
- There are additional items included or enhanced in response to a CIE review of the 2015 findings and subsequent discussions with DPE regarding the 2015 analysis.
- The 2015 analysis is reported in real 2015 dollars and the 2018 analysis is reported in real 2018 dollars (i.e. some inflationary impacts)

Overall, net costs in the 2018 analysis are higher relative to the 2015 analysis (by approximately $110 million in 2018 present values). This reflects the net effect of lower capital costs and higher operational costs. These effects are explained in further detail in the table below. Net benefits in the 2018 analysis are higher relative to the 2015 analysis (by approximately $400 million). The major drivers of this change are:

- **Two new benefit items were included in the 2018 (~$150 million in benefits), namely company income tax and royalties:** These were added to respond to the CIE review of the 2015 analysis (conducted on the Department's behalf) recommendations. It is noted that the inclusion of these two benefit streams is consistent with DPE guidelines for economic assessment.
- **Revenue estimates in the 2018 analysis are higher (~$250 million):** More detailed coal price forecasts from Macquarie Bank were available to inform the 2018 analysis. These forecasts differentiate between Thermal and Semi Soft Coking coal extracted from Rix's Creek. The forecasts used in the 2015 analysis did not enable this differentiation. Recognising that revenue benefits are a significant driver of the overall analysis results, sensitivity analysis were undertaken using alternate sources of price forecast information.

While not directly comparable, as noted above, the table below identifies the main differences between the analyses for each item in more detail.

	2015	2018	Commentary
Incremental Costs			
Capital expenditure	110.5	57.5	Reduced CapEx requirement following the acquisition in 2015 of the Integra Open Cut. The acquired assets included a substantial open cut mobile mining fleet which has reduced the need to replace ageing Rix's Creek South mining equipment.
Operating expenditure	705.4	882.3	Re-assessment of OpEx for 2018 calculation to acknowledge that costs will vary with production levels. As well, the second hand equipment acquired with the Integra open cut generally comprises both excavators and trucks of a smaller class than the pre-existing fleet. Smaller equipment is generally less efficient and more expensive to operate on a unit cost basis.
Environmental externalities	4.5	5.9	Responding to CIE review of the 2015 findings, the analysis of environmental externalities is brought into line with the DPE-recommended approach (and workbooks) to quantifying the environmental cost of Carbon Emissions and Air Quality (PM2.5) impacts.
Opportunity cost of land use	0.2	0.6	Increase in land values from original analysis.
Rehabilitation expenditure	-	(16.0)	Reflects the higher and more immediate cost of rehabilitation under a base case scenario where production ceases at Rix's Creek South. Under the project continuation scenario, this rehabilitation expenditure is progressively incurred and remaining rehabilitation costs are incurred at the end of the evaluation period. This is discussed in detail on pp. 16 and 17 of the report.
Total Incremental Costs	**820.6**	**930.3**	
Incremental Benefits			
Revenue	997.5	1,271.8	The 2015 calculation used an Index that does not differentiate between Thermal and Semi Soft Coking coal and is poorly correlated with current prices of any coal type. The Forecast used in 2015 was based on the NEWC Thermal Coal Index. 60% of Rix's Creek saleable coal production is a Semi Soft Coking coal product which attracts a significantly higher price than a Thermal coal product. The 2018 calculation used the Macquarie Bank forecasts as a reputable third party source which does differentiate the pricing of these two coal types. Note that sensitivity testing is conducted on different price forecasts, including from the IMF and the World Bank. As well, industry wide, the achieved contract and spot prices of both thermal coal and semi-soft coal have significantly increased between 2015 and 2018.
Royalties	-	104.3	This was not previously considered in the 2015 calculation and has now been included at a royalty rate of 8.2 percent of gross revenue in line with DPE guidelines.
Company income tax	-	50.9	Similarly, the benefit of 32% of the Commonwealth income tax take which flow to NSW was not previously considered in the 2015 calculation.

Wage premium	104.3	116.9	Increase reflecting the updated ABS figures between 2015 and 2018.
Residual value of capital	-	0.2	Immaterial
Residual value of land	0.4	0.4	Immaterial
Total Incremental Benefits	**1,102.2**	**1,544.5**	
Summary Results			
NPV ($ million)	281.6	614.2	
BCR	1.3	1.7	

Please don't hesitate to reach out if you require further clarification.

Yours sincerely
BLOOMFIELD COLLIERIES

G Bailey

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