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Wallarah 2 Coal Project

Submission on Amended Development Application

Rod Campbell
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Level 5, 131 City Walk
Canberra, ACT 2601
Tel: (02) 61300530
Email: mail@tai.org.au
Website: www.tai.org.au

Introduction

The Wallarah 2 coal project proposes to produce 4 to 5 million tonnes per annum (mtpa) of thermal coal for export. The project is located on the Central Coast of NSW near Wyong. The proponent is Kores, a South Korean government owned corporation.

The Wallarah project is controversial and has faced community opposition as the area is not a major mining area, has sensitive water resources and is near Aboriginal land. Then state opposition leader Barry O'Farrell pledged to stop the project if elected and famously wore a "water not coal" t-shirt on a visit to the area, a pledge he reversed after taking office. O'Farrell's premiership ended partly due to a bottle of wine sent to him by lobbyist Nick Di Girolamo, a lobbyist for Kores and other interests.[1]

The Australia Institute welcomes the opportunity to make a submission on the Amended Development Application of the Wallarah 2 Coal Project. Our submission relates mainly to APPENDIX J Economic Impact Assessment of the application, by consultants Gillespie Economics.

The economic assessment is flawed. It overstates the benefits of the project while understating its costs. While the economic assessment concludes the Wallarah 2 project would bring considerable net economic benefits, in fact the project is unlikely to be financially viable and would likely result in a net cost to the NSW community.

PAST ASSESSMENTS OF WALLARAH 2 PROJECT

The last economic assessment of the project was described by the Planning Assessment Commission as "not credible":

> In considering the merits of the project as a whole the Commission has found that the benefits claimed for the project by the Proponent (and largely adopted in the Department's Preliminary Assessment Report) are not credible.
>
> …
>
> The Commission's view is that the PAR's acceptance of the benefits of the project as presented by the Proponent is simply not credible. No attempt has

[1] Nichols (2014) *Barry O'Farrell 'dropped in' on meeting attended by Nick Di Girolamo and Chris Hartcher*, http://www.smh.com.au/nsw/barry-ofarrell-dropped-in-on-meeting-attended-by-nick-di-girolamo-and-chris-hartcher-20140226-33i5u.html

> been made to address the specific points raised by the critics of the economics assessment, yet these points appear to be soundly argued and entirely plausible. It is not acceptable practice to gloss over this material with a few generalisations of the kind found on pp.48 and 50 of the PAR. [2]

Part of the PAC's concerns over economic assessment of this project relate to the large differences between the different assessments of it, all by the same consultant, Gillespie Economics. The first assessment of the project estimated:

> Overall the W2CP is estimated to have net benefits to the community of $1,519M and hence is desirable and justified from an economic efficiency perspective.[3]

Yet five years later, the same consultants, Gillespie Economics, evaluating the same mine, assuming the same production rate and an even higher coal price found:

> Overall, the Project is estimated to have net benefits to Australia of between $346M and $531M and hence is desirable and justified from an economic efficiency perspective.[4]

Three years later, readers are told:

> Overall, the Project is estimated to have net social benefits to NSW of $274M to $485M (present value at 7% discount rate) and hence relative to the 'without Project' scenario, is desirable and justified from an economic efficiency perspective.[5]

The huge differences in estimated net benefits are not adequately explained to readers. They relate largely to changes in scope. Gillespie Economics initially considered "the community" to include the South Korean government, while in the latest assessment has limited its scope to the community of NSW.

The Wallarah 2 project is not the only project to have experienced difficulties with assessment by Gillespie Economics:

- Gillespie's flawed assessment of the Warkworth Extension Project was a key contributor to the Land and Environment Court's decision to overturn that project's approval.

[2] PAC (2014) *Wallarah 2 Coal Project Review Report*, http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4974, page i and 65

[3] Gillespie Economics (2008) *Wallarah 2 Coal Project Benefit Cost Analysis*. p3

[4] Gillespie Economics (2013) *Wallarah 2 Coal Project - Appendix W Economic Impact Assessment*. p16

[5] Gillespie Economics (2016) *Wallarah 2 Coal Project Economic Impact Assessment*. p5

- Gillespie's assessment of the Ashton SE Open Cut project was abandoned by proponents Yancoal when that project was challenged in court.
- Gillespie's assessment of the Cobbora coal project estimated a net benefit of $2 billion. The hopelessly unviable project had to be abandoned by the proponents at a cost of tens of millions to the NSW taxpayer and the community of Dunedoo.[6]
- Gillespie's assessment of the T4 coal terminal estimated net benefits of $60 billion. This proved a huge overestimate, with a review commissioned by the PAC concluding "In our view, the assumptions adopted for the scenarios modelled by the Proponent are likely to present an optimistic view of the likely benefits to society arising from the Project.[7] The project looks unlikely to proceed.

There are many other examples of flawed analysis by this consultant. In fact it was Gillespie Economics' assessment of the earlier iterations of the Wallarah 2 project that sparked extensive reviews of NSW Government Guidelines on economic assessment:

> The Planning Minister, Pru Goward, said on Monday her department would commission ''separate expert economic analysis'' for all future applications for major mining projects.
>
> The announcement follows a report last week by the state's independent planning body, which slammed Ms Goward's department for uncritically accepting the proponent's claims about the benefits of the proposed Wallarah 2 mine north of Wyong.[8]

Given this background, it is surprising that the proponent persists with economic assessment by Gillespie Economics and that the Department of Planning and Environment accepts it.

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[6] See Gillespie Economics (2012) *Cobbora Coal Project Economic Assessment*, and ABC (2015) *NSW Govt to sell Cobbora coal mine*, http://www.abc.net.au/news/2015-11-20/nsw-govt-to-sell-cobbora-coal-mine/6956274

[7] See Gillespie Economics (2012) *Port Waratah Coal Services Terminal 4 Project – Economic Assessment*, and CIE (2014) *Port Waratah Expansion T4 Review of Economic Analysis*.

[8] Mckenny and Whitbourn (2014) *Mining assessments to be beefed up after scathing review*, http://www.smh.com.au/nsw/mining-assessments-to-be-beefed-up-after-scathing-review-20140616-zs9sd.html

Economic assessment of Amended Development Application

FINANCIAL VIABILITY

The economic assessment estimates net production benefit of $585 million in present value terms. This suggests that the project has a strong financial case, a surprising conclusion given that many coal projects are being delayed or abandoned in NSW and beyond. Many coal companies are in financial distress, with several filing for bankruptcy protection in the USA, including former major company Peabody Energy. Existing coal mines are being traded at peppercorn prices in Australia and shares in operating mines can be bought cheaply. It is highly unlikely in this environment that a company would invest in a new, deep-underground greenfields thermal coal mine, particularly one with so much political and environmental controversy surrounding it.

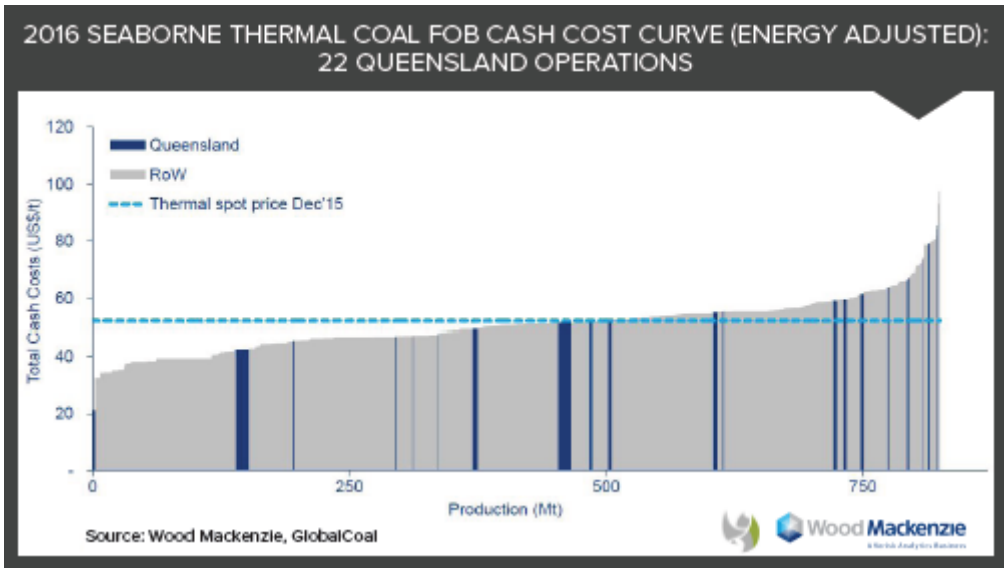
The key reason the economic assessment overestimates the financial viability of the project is its low figure for operating costs. Gillespie Economics estimate annual average operating costs at $192 million (p32), before royalties. Average annual production is estimated at 3.974 mtpa (p33). This equates to an average cost of production of $48 per tonne.

Gillespie Economics assume a coal price of just under $100 per tonne, discussed further below. Assuming most of the project's coal is liable for a royalty rate of 7%, this adds $7 to the per tonne cost of production, a total of $55.

To compare this to other coal mines in Australia and internationally, it needs to be converted to US dollars. At current exchange rates this is USD$42 per tonne, or at Gillespie Economics' favoured exchange rate, USD $39.6 per tonne.

This would mean the Wallarah 2 project is one of the cheapest mines to operate in the world, and certainly cheaper than almost every mine in Queensland. This can be seen in a chart recently released by the Queensland Resource Council, based on analysis by Wood MacKenzie, analysts favoured by Gillespie Economics:

Figure 1: Thermal coal cost curve



Source: Queensland Resource Council (2015) State of the sector.[9]

Figure 1 shows that there are very few mines in the world that can produce at $US40 per tonne. Unfortunately this chart does not show NSW mines, only Queensland mines in dark blue. Almost none of Queensland's coal mines can produce at the costs claimed by the proponents of Wallarah 2 and Gillespie Economics.

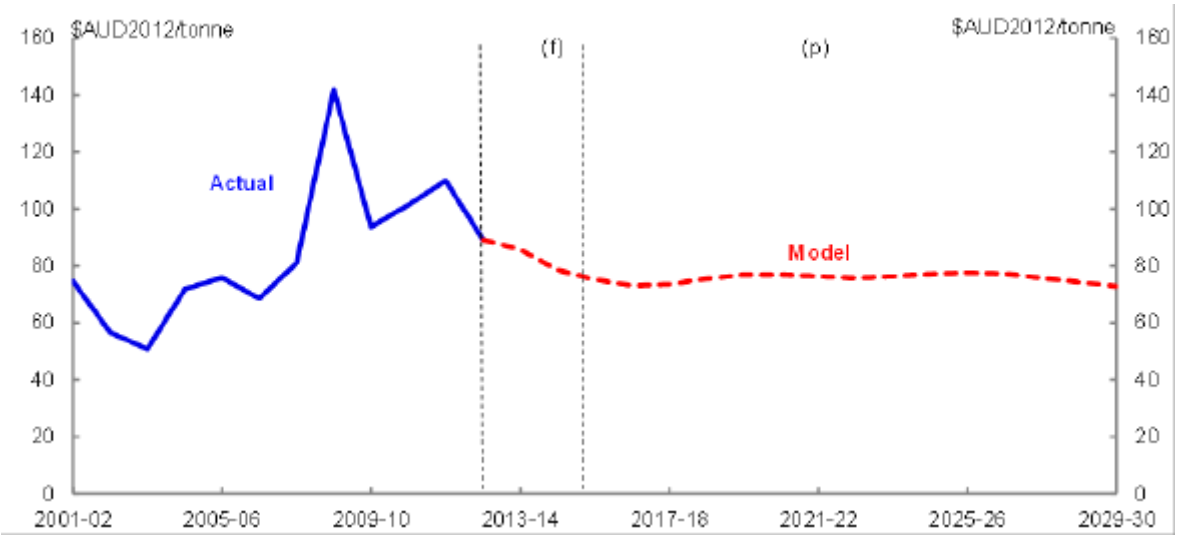
Given that Wallarah is a relatively small, fairly deep underground mine, and it would involve mining in a sensitive area, it is not credible to suggest that it will be able to operate at an average cost among the cheapest in the world. It seems likely that its average costs would be well above world averages, which would likely make the project unviable at current, or at Gillespie Economics', coal prices. Gillespie Economics sensitivity analysis does not test the sensitivity of net production benefits to a change in operating costs.

COAL PRICES

Gillespie Economics use a coal price of AUD$100 per tonne, substantially above the current AUD price of $88 per tonne, and far above the long term Treasury forecast of around $80 per tonne:

[9] https://www.qrc.org.au/_dbase_upl/State%20of%20the%20Sector_DecQtr15.pdf

Figure 2 Federal Treasury, Australian thermal coal real unit export price forecast



Source: Bullen, J., Kouparitsas, M. & Krolikowski, M., 2014. Long-run forecasts of Australia's terms of trade, Published by The Treasury, Commonwealth of Australia. Available at: http://www.treasury.gov.au/~/media/Treasury/Publications and Media/Publications/2014/Long run forecasts of Australia's terms of trade/Documents/PDF/long_run_tot.ashx.

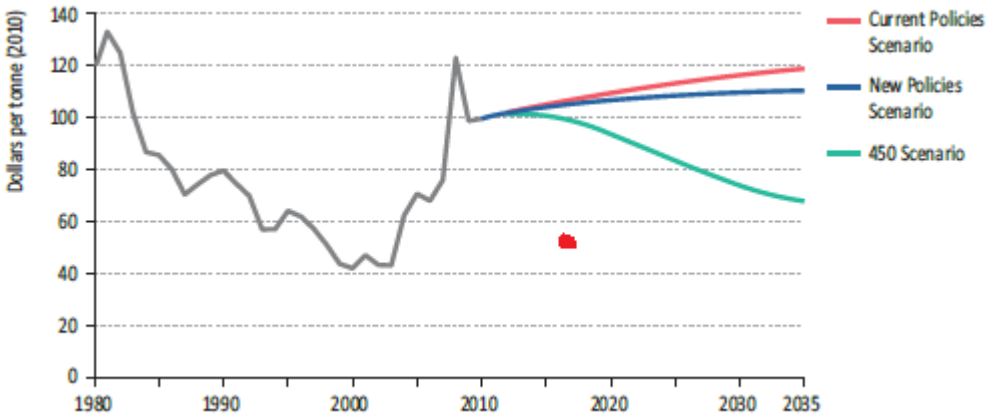
Gillespie Economics claim that "forecasts" (p34-35) from the International Energy Agency (IEA) support their use of higher coal prices and that these include consideration of new climate policies. However, the IEA does not make "forecasts" at all, as it makes clear:

> The [IEA's modelling] results however, do not constitute a forecast. New policies, as yet unformulated, will certainly be adopted over the course of the next twenty-five years. Indeed, one purpose in projecting the future is to demonstrate the need for their adoption.[10]

If the IEA's modelling of coal prices were to be treated as forecasts, they would not be very good ones. Consider the price 'forecasts' from the IEA's 2011 World Energy Outlook, shown in the Figure 3 below:

[10] IEA 2015, World Energy Outlook 2015, p34

Figure 3 2011 World Energy Outlook average OECD steam coal import price by scenario



Source: IEA 2011, World Energy Outlook, p363

In Figure 3 above, we have added a red spot at approximately where current coal prices are. We see that none of the IEA's scenarios 'forecast' that such an outcome was possible. The IEA's current coal price scenarios also seem optimistic.

Gillespie Economics also fail to conduct sensitivity testing around the coal price on net production benefits, giving decision makers no understanding of the financial outlook for the project. This is inappropriate given the current uncertainty around coal markets and the viability of many coal projects.

Decision makers should be aware that the project is unlikely to be financially viable currently or in the foreseeable future. If approved, it is unlikely to proceed as planned. In our opinion, the current approval is being pursued not because the project is profitable, but for corporate strategic reasons, such as:

- Banking approval for potential future development.
- Approval would add to the sale value of the project.
- Lack of approval would result in an asset write down, with implications for company balance sheets and the careers of the people responsible.

The ongoing uncertainty over the project imposes costs on the community. People living with the uncertainty of a potential coal project impacting on their property value, business plans and water sources experience serious social, financial and

psychological costs, not to mention the amount of time the ongoing assessment process requires of them. The project should be rejected on this basis.

TRANSMISSION LINES

The project lies under high voltage transmission lines, as noted in the EIS. A submission from the Division of Resources and Energy (DRE) notes:

> The infrastructure owner has indicated it may not be feasible to undermine the two towers in question, based on the subsidence predictions and current technology. If coal barriers are required to protect the towers due to their location a substantial volume of coal would need to be sterilised. The amount of coal sterilised by barriers necessary to protect the towers in question may significantly exceed the proponent's estimate in the EIS. It follows that the viability of a significant proportion of the proposed mine layout may be questionable.[11]

While the DRE notes that this occurs late in the project's life, this is still important for the financial viability of the project and potential timing of commencement. Gillespie Economics' assessment gives no understanding of how this issue could affect the viability of the project or its potential net benefit to the NSW community. Sensitivity analysis should be conducted to assess what volumes of coal might be affected, the timing of any sterilisation and how this affects the viability of the project. Potential costs to infrastructure owners, governments and power users should also be considered.

WATER ISSUES

The potential effects of the Wallarah 2 project on water resources have been hugely controversial. It is inappropriate for the economic assessment to include no detailed consideration of these impacts and to assume that all impacts will be offset by mitigation measures. Based on community submissions, it is clear that there is potential for considerable costs to the community from impacts on water supply, stream morphology, groundwater, flooding, biodiversity and water balance. These costs would be entirely borne by the NSW community. By failing to assess these costs it is likely the economic assessment understates the costs of the project.

[11] DRE (2016) *Wallarah 2 Coal Project Environmental Impact Statement Review*, https://majorprojects.affinitylive.com/public/ec0397d0b0c9b19da71b298e32ac5fe6/DRE.pdf

OTHER INDUSTRIES AND LANDHOLDERS

A key part of controversy around the Wallarah 2 project has been its potential impacts on land owned by the Darkinjung Local Aboriginal Land Council and the various developments existing and planned for this area. The economic assessment includes no consideration of costs that might be imposed on the Darkinjung in either the cost benefit analysis or the local effects analysis. This may serve to heavily understate the costs of the project at a local level.

COMPANY TAX

The economic assessment claims that $220 million in present value company tax will be paid by the proponents, over half the estimated benefit to Australia. There is no transparency around Gillespie Economics' calculation of this figure. Given the complexities involved in company tax payments, particularly with large companies with offshore entities, this is inappropriate and almost certainly serves to overestimate the benefits of the project. Mining companies have a huge array of ways to minimise company tax payments and this calculation should be shown in detail.

NON-MARKET VALUE OF EMPLOYMENT

It is important to understands what this value is. It refers to an amount of money that the community would be willing to pay to ensure that other people have jobs in a coal mine, over and above the wages that the mine workers receive. This value assumes that members of the public derive benefit from knowing someone else is working in a coal mine and they are willing to pay for that benefit.

That the public is willing to pay to subsidise some employment is not entirely surprising. We regularly subsidise Indigenous employment and employment in industries such as car manufacturing – situations, people and industries which for various reasons the public may value. Whether this value exists for a coal mine in sensitive catchment areas is debatable.

What is not debatable is that social value of unemployment is heavily overstated in the assessment of the Wallarah 2 project. The assessment assumes $186 million present value of this external benefit, some $620,000 per job. It seems highly unlikely that the public would be willing to pay such a large sum for employment in a well paid industry and one that tends to attract controversy around its environmental impacts. By comparison, Ford was receiving a subsidy of around $2800 per job per year until

recently, a subsidy that attracted searing criticism from many economists and politicians.

INPUT-OUTPUT ANALYSIS

The "Supplementary Local Effects Analysis" is based on thoroughly discredited input output modelling. It has been heavily criticised by the PAC, including in relation to the Wallarah 2 project. The Land and Environment Court dismissed this modelling as "inadequate".[12]

The Land and Environment Court's criticism was taken on board by another coal company, Yancoal. They had submitted an input-output study by the same authors as the earlier Warkworth assessment for initial planning approval. [13] Faced with more serious scrutiny in the Land and Environment Court, Yancoal discarded their input-output model and commissioned a GE modelling exercise from well-known consultants ACIL Allen.

ACIL Allen's analysis found that the Ashton project would result in a change in employment of just two jobs more than direct employment in the project. Director of ACIL Allen, Jerome Fahrer, said to the Land and Environment Court:

> [In] the Warkworth case input/output modelling was criticised by the chief judge and ... for good reason. Input/output modelling is fine for some purposes but it's not the best technique … for this kind of purpose [evaluating a coal mine]. The reason is that input/output modelling takes no account of the fact that there are limited productive resources [in the economy] principally people to be employed. So it always makes the amount of output, income, jobs, bigger than would likely be the case, unless you're in the Great Depression, or a very deep recession.[14]

Gillespie Economics continue to defend input output modelling and they are entitled to their opinion. We note that they are contradicted not only by their consulting peers at ACIL Allen and by the bench of the Land and Environment Court, but also by recent

[12] Preston, B. (2013). Judgement on Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited. Judgement in the Land and Environment Court, New South Wales. Retrieved from http://www.edo.org.au/edonsw/site/pdf/casesum/Warkworth_judgment.pdf

[13] HVRF. (2009). Ashton coal EIS Appendix 17: Social and Economic Environment. Prepared for Wells Environmental Services on behalf of Ashton Coal Operation

[14] See court transcripts of Hunter Environment Lobby Inc v Minister for Planning and Infrastructure in the Land and Environment Court of NSW, page 546.

Planning and Assessment Commission decisions, the ABS[15], the Productivity Commission[16] and many other economists.

CONCLUSION

The Wallarah 2 project is unlikely to be financially viable. Its costs have been underestimated and its benefits overestimated in the economic assessment of the amended project, as in the two previous iterations. Even if approved, it is unlikely to proceed as planned and deliver any benefits of royalties or jobs to the NSW community.

The ongoing uncertainty over the project imposes costs on the community. People living with the uncertainty of a potential coal project impacting on their property value, business plans and water sources experience serious social, financial and psychological costs, not to mention the amount of time the ongoing assessment process requires of them. The project should be rejected on this basis.

[15] ABS. (2011). 1367.0 - State and Territory Statistical Indicators, 2011 - Count of Businesses. Australian Bureau of Statistics website. Retrieved February 13, 2014, from http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by+Subject/1367.0~2011~Main+Features~Count+of+Businesses~2.24

[16] Gretton, P. (2013). On input-output tables: uses and abuses. Staff Research Note, Productivity Commission, Canberra. Retrieved from http://www.pc.gov.au/__data/assets/pdf_file/0008/128294/input-output-tables.pdf