

Wallarah 2 coal project: Submission to Planning and Assessment Commission

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Introduction

The Australia Institute welcomes the opportunity to make a submission to the Planning and Assessment Commission (PAC) on the Wallarah 2 Coal Project. Our submission focuses mainly on the economic aspects of the project and how these were addressed in the Department of Planning and Infrastructure's (DPI) recent Environmental Assessment Report (EAR).

The proposal is to develop an underground coal mine near Wyong, situated between Newcastle and Sydney, NSW. The mine would extract up to 5 million tonnes per annum (Mtpa) of coal which would require little further processing to reach saleable quality. The mine has attracted controversy due to its potential impacts on the local environment, particularly water resources.

The main author of this submission, Rod Campbell, was the author of an earlier submission on this project by Economists at Large. Rod now works at The Australia Institute.

The economic benefits of the Wallarah 2 project have been consistently overstated, while serious costs to the community have either been understated or not estimated at all. The DPI acknowledge, but appear unconcerned by, these inaccuracies and by large fluctuations in estimates of the project's values and employment impacts.

In short, royalties and taxation revenue have been overstated, as have the impacts of employment. By contrast, no value has been placed on water, health or other impacts of community concern. It is likely that the project would reduce economic welfare of the local region and at a state level also. On this basis, we recommend refusing approval of the project.

Economics of Wallarah 2 project

The commission should note that estimates of the economic benefits of the Wallarah 2 project have varied widely between different assessments and the Department of Planning and Infrastructure's (DPI) Environmental Assessment report (EAR). 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.¹

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.²

The difference between these two assessments reflects changes made in Gillespie Economics' methodology following consistent criticism of their most obvious errors in many different coal project assessments. In particular, Gillespie Economics' tendency to include

¹ (Gillespie Economics, 2008) p3

² (Gillespie Economics, 2013b) p16

foreign profits as “community benefits”. These errors were picked up not by the DPI, but by Economists at Large.³

Even though it was scrutiny by Economists at Large that was responsible for Gillespie Economics’ \$1+ billion adjustment of the Wallarah 2 project’s benefit calculations, the DPI is reluctant to engage further with that submission:

Nevertheless, even if some of the [Economists at Large] criticisms are accepted, the Department is satisfied that they would not fundamentally alter the fact that the project would result in significant economic benefits for the State and the region. Further, the Department does not believe that any of the [Economists at Large] criticisms of the CBA are determinative, and consequently do not alter the broad conclusion of the CBA that the project would result a net benefit to the community.⁴

It is our opinion that the DPI does not have the capacity to adequately review economic assessment of major projects. There are numerous examples of where DPI has accepted proponent-commissioned economic assessments, only to have the proponents themselves concede these were wildly optimistic. For example, the assessment of the T4 coal terminal project, which saw a \$30 billion adjustment of benefit calculations between the first assessment and the preferred project report or the adjustment of indirect jobs in the Ashton Coal project from 520 to just two between the economic assessment and subsequent hearings in the Land and Environment court.⁵

DPI’s endorsement of Gillespie Economics in the past has not been supported by other decision makers:

I am not satisfied that the economic analyses [by Gillespie Economics] provided on behalf of Warkworth support the conclusion urged by both Warkworth and the Minister, namely that the economic benefits of the Project outweigh the environmental, social and other costs.⁶

In the Commission’s view the unresolved contested nature of the approach to, and results of [Gillespie Economics]’ analysis mean that it can be accorded little weight. Consequently, the Commission considers that, contrary to the views expressed by the peer reviewer employed by the Proponent, key results of the analysis, such as the project benefits, may not present a sufficiently reliable platform for decision-making.⁷

Despite such criticism and the wide variation in the estimates of the value of the Wallarah 2 project, the EAR adopts the upper range of the more recent economic assessment:

³ see for example submissions on Gillespie Economics’ evaluations of the Maules Creek Coal Project and the Warkworth Extension Project (Bennett & Gillespie, 2012; Bennett, 2011; Campbell, Doan, Kennedy, & McKeon, 2011; Campbell, 2012).

⁴ (NSW DPI, 2014) p48

⁵ See for example the assessment of the T4 coal terminal project, which saw a \$30 billion adjustment of benefit calculations between (Gillespie Economics, 2012) and (Gillespie Economics, 2013a) or the adjustment of indirect jobs in the Ashton Coal project from 520 to 2 between (HVRF, 2009) and (Fahrer 2013 – see court transcripts as judgement is still pending in the Land and Environment Court).

⁶ (Preston, 2013) p155

⁷ (PAC, 2012a) p140

The CBA calculates the net community benefit (NCB) of the project to be \$531 million, which comprises:

- \$207 million in mining royalties;
- \$134 million in taxes; and
- \$186 million in social/economic values of employment.⁸

These three values are examined below. We believe all are overstated.

Royalties

As the Wallarah 2 project is foreign owned, royalties are the most important economic benefit to the NSW government. Close attention should be paid to the calculation of this value and the potential range of values it may take. The original economic assessments provided no details as to how the \$207 million figure was derived and no sensitivity analysis was provided. The Economists at Large submission raised this lack of transparency on arguably the most important calculation in the assessment. The response to submissions merely reproduces the royalty rates published by the NSW government,⁹ but provides few other details. This should be of concern to the PAC as there are several variables that can affect this calculation:

- Price – while the coal prices used in the royalty calculations of AUD\$99 per tonne are in line with the longer term estimates of most analysts, current spot prices are considerably below this level. Consideration should be given of how the current downturn in coal prices might affect the present value of royalties from the project.
- Deductions – there are many deductions from royalties available to coal producers, including beneficiation, levies, insurance and other categories such as bad debts. These have the potential to reduce royalties by over \$3.50 per tonne, around half of royalties that are estimated at between \$6.14 and \$7.12 per tonne in the assessment.
- Enforcement – ensuring the appropriate rate of royalty is paid is particularly difficult for an underground mine operating at various depths due to the different rates that apply. Note that the NSW Auditor General has stated:

[Department of Industry and Investment] cannot assure the people of NSW that all royalties owed are being paid in full. This is because it does not have sufficiently robust systems and processes to identify what is owed and to make sure it is paid.¹⁰

As a result, the royalty values estimated by the proponents should be considered a reasonable upper estimate, with a lower estimate being around half as much, approximately \$100 million.

These royalties should also be placed in context. NSW receives around \$1.4 billion in coal royalties per year, 2 per cent of the state's \$60 billion dollar revenue. The economic assessment of the Wallarah 2 project estimates it will pay \$24 million on average per year, some 1.7 per cent of NSW coal royalties and a fraction of the state budget.¹¹

⁸ (NSW DPI, 2014) p50

⁹ (NSW DII, 2008)

¹⁰ (NSW Auditor General, 2010) p2

¹¹ (NSW Government, 2013)

Furthermore, state governments subsidise the coal industry through measures such as the \$100 million Clean Coal Fund.¹² The Wallarah 2 project's royalties and the coal industry's revenues should be considered alongside the assistance they receive from the state. The economic assessments of the project make no attempt to explore what assistance the project may receive.

Assumptions on price, deductions and enforcement are either not transparent or not subject to sensitivity analysis. The PAC should have the royalty calculations reviewed by Treasury or independent analysts to properly gauge the project's fiscal implications for NSW. Regardless of the accuracy of this calculation, it represents a small fraction of coal royalties and state revenue.

Tax revenue

The tax revenue figures quoted in the EAR are based on a 30 per cent company tax rate. As pointed out in the Economists at Large submission, the effective tax rate for mining companies is much lower due to favourable tax treatment of depreciation and exploration expenses. In the submission, two papers were quoted which estimated the effective tax rate of the mining industry at 13.9 per cent and 17 per cent.¹³

The response to submissions claims:

One of these studies calculates the effective tax rate for the entire mining sector (not only the coal mining sector) according to Gross Operating Surplus (GOS) instead of gross profit. GOS does not account for production costs such as consumption of fixed capital, interest, royalties, land rent payments and direct taxes payable on inputs. GOS is the incorrect denominator for estimation of the effective tax rate. The other study also refers to the Australian —mining sector (rather than the coal mining sector) and it is not clear if any coal mining companies were included in the data used in the analysis.¹⁴

The response is correct that company tax is not applied to gross operating surplus, which is a broad measure of profit easily accessible in public statistics. It is wrong to suggest, however, that this means a 30 per cent tax rate is likely to apply to the Wallarah 2 project to calculate economic benefits to Australia. Companies must by law pay a 30 per cent tax rate on their assessable income. The point of assessing taxes paid against gross operating surplus is to see how much of that broad measure of profit is reduced by deductions such as accelerated depreciation and exploration write offs.

In regard to the other paper, the response to submissions is correct that the authors do not break coal mining out of the general mining sector. It is wrong, however, to suggest that coal mining is not taxed similarly to the rest of the mining sector and that the paper's results are

¹² (NSW Treasury, 2010)

¹³ (Richardson & Denniss, 2011) and (Markle & Shackelford, 2009)

¹⁴ (Hansen Bailey, 2013) p152

not relevant to the Wallarah 2 project. Both of these papers strongly suggest that the tax benefit claimed in the economic assessment is heavily overstated.

Similarly to royalty estimates, the PAC should consider the proponent's estimate to be an upper bound for federal tax revenue, with a lower bound in line with Economists at Large submission estimate of \$64 million.

Social value of employment

Given this value accounts for over one third of the present value of the project in the estimate accepted by DPI, it is important that the PAC understands what this value is. It refers to an amount of money that taxpayers 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 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 \$17 million per year of this external benefit, some \$57,000 per job per year. 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 criticism from many economists and politicians.¹⁵

A social value of employment is not used in standard cost benefit analysis of projects. We are unaware of any other consultants who routinely use this value including consultant assessments of NSW coal projects.¹⁶ Even the 2013 EA concedes:

In the context of a fully employed economy there may be some contention about the inclusion of this value, particularly as it requires benefit transfer from a study of an existing mining operation in another region of NSW. Consequently, sensitivity testing that excludes this value has also been undertaken.¹⁷

The social value of employment estimate is based on an equally contentious economic modelling exercise, known as choice modelling. Decision makers have been critical of Gillespie Economics' modelling, used to derive social value of employment for this project:

The Choice Modelling study, which provides the values for the non-market benefits and costs, was deficient in limiting the survey respondents to residents of New South Wales, and providing inaccurate, indiscriminate and uninformative information to survey respondents which affected their choices and values.¹⁸

¹⁵ (Dowling, 2012)

¹⁶ see for example (DAE, 2011; ECS, 2013; Key Insights, 2013)

¹⁷ (Gillespie Economics, 2013b) p15

¹⁸ (Preston, 2013) p155

The techniques available for placing an economic value on natural [and social] features are still relatively crude and, in the Commission's view, their application usually falls well short of the standard required to withstand rigorous scrutiny.¹⁹

The DPI's acceptance of this value is at odds with earlier PACs, the Land and Environment Court and standard economic evaluation practice. The PAC should dismiss this value entirely and focus on comparing royalty and tax values with external costs.

Weighing costs and benefits

As discussed above, the likely financial benefits of the project, from royalty and tax revenues are between \$341 million and \$164 million in present value terms. These benefits need to be weighed against the subsidies that the proponents may receive, as well as costs that will be borne by the environment and the community. The EAR notes:

The Department notes that the [economic assessment's] calculation of [community benefits] assumes a 'negligible' cost in relation to most of the key externalities. While the Department expects there to be more than negligible impacts in relation to some, if not all, of these issues, it is satisfied that the recommended conditions of consent would provide for appropriate offsets, mitigation or management of these impacts.

It is beyond the scope of this submission to assess the external costs of the project, however from our understanding of other submissions, we concur with the EAR that they are likely to be non-trivial. Water impacts, health impacts from dust in mining and transport and climate change impacts are all considerable economic costs. These have been given scant attention in the economic assessments or by DPI. For example, the value of greenhouse gas costs changed from \$338 million to \$56 million without explanation and without considering eventual combustion of the coal.²⁰

It is highly possible that the project represents a net loss of welfare for Australia, and more likely still at a local level, as most financial benefits accrue to federal and state treasuries, while external costs are largely localised.

Employment

The PAC should note the difference between the 2008 and 2013 economic assessments. The in 2008 the mine's economists estimated the construction of the mine would generate 5,125 jobs.²¹ Yet in the EAR we are told:

The project would also generate approximately 800 jobs²²

Even this is an overstatement as it is based on methodology described as "biased" by the Australian Bureau of Statistics and regularly "abused" by the Productivity Commission and other prominent economists.²³ The DPI acknowledges in the EAR:

The Department notes the concerns raised by [Economists at Large] about the value of the IOM methodology in general, and accepts that the methodology has limitations.

¹⁹ (PAC, 2012b) p5

²⁰ (Gillespie Economics, 2008, 2013b)

²¹ (CCRF, 2008)

²² (NSW DPI, 2014) p1

²³ (ABS, 2011; Denniss, 2012; Gretton, 2013; Layman, 2002)

As mentioned above, the proponents of the Ashton mine in the Hunter Valley commissioned this sort of modelling to estimate the employment impacts of their project, with an estimate of 520. This assessment was accepted by the DPI, who recommended approval of the project. Knowing this assessment would be subject to close scrutiny in a subsequent court appeal against the project, the proponents employed a different economist to use more sophisticated modelling. This later estimate showed that the project would result in employment impacts only two jobs greater than the number of direct employees. Furthermore, this modelling showed that mining projects displace employment in other industries, rather than “creating” new jobs.²⁴

The PAC should be aware that the Wallarah 2 project could employ around 300 people according to the economic assessment. It will create almost no “downstream” or “indirect” jobs and it is likely to displace some employment in other industries due to crowding out effects. Modelling that suggests the project will create many hundreds or thousands of jobs has been thoroughly discredited and should not be given any weight.

Conclusion

The PAC should be concerned by the standard of economic assessment that the Wallarah 2 project has received through three economic assessments and review by the DPI. There has been no explanation from the proponents, consultants or the DPI of the wide variation in estimated values and employment impacts. This is all the more concerning given the increased importance NSW decision makers are supposed to place on economics under recent changes to legislation.

Estimates of royalty and taxation revenue provided by the proponents are almost certainly overstated. These values need to be weighed against the potentially serious external costs that the project would subject the community to. It is our opinion that the project is likely to reduce the welfare of the local region and should be rejected on this basis.

²⁴ (HVRF, 2009) and see court transcripts until judgement is received from the Land and Environment Court.

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