18 December 2018

Commissioners
Independent Planning Commission
3/201 Elizabeth Street
SYDNEY NSW 2000

Attention: Mr Gordon Kirkby

Dear Gordon,

Bylong Coal Project
Response to Submissions in Relation to Economic Impact Assessments

1. INTRODUCTION

This letter responds to the matters raised by submissions received by the Independent Planning Commission (IPC) in relation to the potential economic impacts of the Bylong Coal Project (the Project).

A number of stakeholder submissions received by the IPC have generally raised concern over the assessment of economic impacts of the Project. These matters have previously been raised in submissions over the Project and have subsequently been addressed in the approvals documentation for the Project.

Gillespie Economics has prepared a brief summary response to these key matters raised which is providedin **Appendix A** and summarised in the following sections.

2. SUMMARY RESPONSE

A brief summary of the matters which have been raised in relation to the economic impact assessment and KEPCO's responses to these are provided below for consideration by the IPC:

- **IEEFA's Qualifications** – Gillespie Economics has never questioned the qualifications of the IEEFA personnel. The IEEFA's Mission Statement has been noted indicating that any research completed has been skewed to achieve this mission.
- **Reference to the International Energy Agency's (IEAs) Sustainable Development Scenario (SDS) –** Gillespie Economic's report clearly defines the three scenarios utilised within the World Energy Outlook, including the SDS. Further the report further qualifies the reason for only the Current Policy Scenario and New Policy Scenario being considered.
- **Reference for Information Regarding New Power Plants –** The Gillespie Economics report clearly souces this information from the journal of the Office of the Chief Economist, the Energy and Resources Quarterly (September 2017).
- **International Demand/Trade of Thermal Coal is Declining –** This is contradictory to the recent report released by the International Energy Agency (IEA) (2018) which indicates for its Current Policy Scenario (CPS) that global thermal coal demand, production and trade to 2040 is forecast to grow, with Australian coal exports expected to increase from 350 Million tonnes per annum (Mtpa) to 428 Mtpa (i.e. an 22.3% increase).
- **No Demand for Coal from the Bylong Coal Project** - KEPCO has assessed the global supply and demand situation, as well as global and domestic policy settings, and determined that there would be benefit from obtaining the secure supply of the high quality, low emission coal from the Project.
- **Coal Price Used in the Economic Impact Assessment is Overstated** - The coal price and currency assumptions used within the Economic Impact Assessment is based on forecasts from Wood Mackenzie and have been identified as being reasonable and consistent with expected future thermal coal prices. The Economic Impact Assessment has included sensitivity analyses for varying coal prices.
- **Project is Not Financially Viable** - Having considered, global and domestic supply and demand, and policy settings, KEPCO is seeking to invest $1.3B in the Project. It is highly unlikely that KEPCO would invest $1.3B in the Project and then operations prematurely cease. The existing regulatory regime requires securities to be held by Government to ensure any impacts of mining can be appropriately remediated in the unlikely event that mining was to prematurely cease.
- **KEPCO Does Not and Will Not Pay Tax in Australia** - KEPCO has never been required to pay tax in Australia because the Bylong Coal Project is its first Australian Project. The Bylong Coal Project would be subject to the provisions of Australian tax law and would be required to pay 30% company tax on taxable income.

- **Debt Funding Means Company Tax Estimate is Overstated** - The Economic Impact Assessment has provided an estimate of benefits to NSW at different levels of debt funding i.e. 0% to 60%.
- **Local Employment and Economic Activity Estimates are Questionable** - Employment and other economic activity generated by the Project has been estimated using three different methodologies. It is clear from the results of all three methods that the Project will lead to significant economic activity within the local economy.
- **Comparison of Cost Benefit Analysis and Computable General Equilibrium Analysis** - These methods are not measuring the same thing and hence why any comparison of results is illogical. However, both methods do demonstrate that the Project has significant economic benefits to the local area, NSW and Australia.

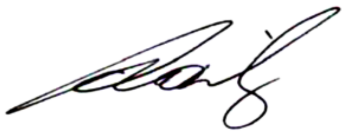
3. CONCLUSION

We trust this letter addresses the matters raised by stakeholder submissions in relation to economic impact assessments for the Project.

Please do not hesitate to contact us should you have any questions or require any further information.

Yours faithfully

HANSEN BAILEY



Nathan Cooper
Principal

James Bailey
Director

APPENDIX A

GILLESPIE ECONOMICS SUMMARY RESPONSES TO SUBMISSIONS

Gillespie Economics

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Nathan

Re: Bylong Coal Project - Review of Economic Submissions to the Independent Planning Commission

As requested, I have reviewed the submissions and representations from:

- The Australia Institute (TAI);
- The Institute of Energy Economics and Financial Analysis (IEEFA); and
- Pegasus Economics;

to the Independent Planning Commission regarding the Bylong Coal Project (the Project).

These submissions mostly raise the same issues that have previously been raised over the Project's Economic Impact Assessment and have subsequently been addressed in the *Bylong Coal Project Response to Submissions* (RTS) (Hansen Bailey 2016a), *Bylong Coal Project Supplementary Response to Submissions* (Supplementary RTS) (Hansen Bailey 2016b), *Bylong Coal Project Response to PAC Review Report* (Response to PAC Review Report) (Hansen Bailey 2018a) and the *Bylong Coal Project Supplementary Information Report* (Supplementary Information Report) (Hansen Bailey 2018b). However, the matters which have again been raised by these stakeholders are briefly addressed in the Attachment to this letter.

Regards

18/12/18
Dr Rob Gillespie
Principal
Gillespie Economics

ATTACHMENT: A

Matter Raised: Gillespie Economics questions IEEFAs qualifications

Response: Gillespie Economics has never questioned Mr Buckley's or Ms Brown's qualifications. Gillespie Economics has previously identified the IEEFA's Mission Statement which is to "*accelerate the transition to a diverse, sustainable and profitable energy economy* i.e. away from coal fired electricity generation, and stated that far from being a reliable, unbiased, source of information on global energy and the environment, the IEEFAs research is skewed to achieve its Mission Statement. Mr Buckley has not responded to this assertion.

Matter Raised: Gillespie Economics Crib and Doctor the IEA Sustainable Development Scenario Out of the Report

Response: The Gillespie Economics response to the previous IEEFA submission clearly defines each of the International Energy Agency (IEA) scenarios (refer to Section 3, page 8 of Appendix M of the Supplementary Information Report). As identified in that submission, only the Current Policies Scenario[1] (CPS) represents the current state of play.

The New Policies Scenario (NPS) considers existing policies as well as announced **policy intentions,** including **aspirational** policies and targets. These are not enacted into legislation and may not be implemented.

The Sustainable Development Scenario (SDS) starts from selected key outcomes and then works back to the present to see how they might be achieved. It has no basis in current or aspirational policy announcements of governments.

The Gillespie Economics response to the previous IEEFA submission clearly stated that because of the highly speculative nature of the SDS, only the CPS and NPS were considered (refer to Section 3, page 8 of Appendix M of the Supplementary Information Report).

Matter Raised: Gillespie Economics Fails to Disclose the Source of Claims that there is Global Coal Plant Pipeline of 286 New Coal Plants, including 11 in South Korea

Response: The Gillespie Economics response to the previous IEEFA submission (Appendix M of the Supplementary Information Report) clearly references (pg. 18 of Appendix M of the Supplementary Information Report) the source of this information as "The Journal of the Office of the (Australian) Chief Economist, the Resources and Energy Quarterly (September 2017), p. 43".

Matter Raised: International Demand/Trade of Thermal Coal is Declining

Response: The Latest IEA World Energy Outlook 2018 (pg. 217) states that:

"*Coal demand made a comeback in 2017. Declines in coal demand and prices after 2014 led some observers to conclude that coal had already entered terminal decline. But in 2016, coal prices started to rebound, demand increased in 2017 and prices continued to rise into 2018, leading to sustained profits for coal producers.*"

The IEA World Energy Outlook 2018 identifies that coal is forecast to remain a significant part of the world energy mix. Under the IEA's Current Policy Scenario (CPS), global thermal coal demand,

[1] Based solely on existing laws and regulations as of mid-2018.

production and trade to 2040 is forecast to grow. Under the New Policy Scenario (NPS)[2], overall thermal coal demand declines slightly (by 2% in 2040). However, Australian coal exports increase from 350 Million tonnes per annum (Mtpa) to 428 Mtpa (i.e. 22%).

Matter Raised: No Demand for Coal from the Bylong Coal Project

Response: KEPCO has assessed the global supply and demand situation, as well as global and domestic policy settings, and determined that there would be benefit to it from obtaining the secure supply of the high quality, low emission coal from the Project. While renewables and liquefied natural gas (LNG) will increasingly become important to South Korea's energy mix, coal will continue to have a central role to play, just as it will globally.

KEPCO, the proponent for this Project, which is 51% Republic of Korea government owned and a major global utility company, is in a better position to judge the need and strategic importance of this Project to South Korea and KEPCO, than submissions based on miscellaneous and selective quotes from newspaper articles. In summary;

- Coal will continue to be important to the energy mix in South Korea.
- The coal from the Bylong Coal Project has a low sulphur content (less than 0.4%) that has advantages for lowering air pollution in South Korea and accords with South Korea's new regulations for the sulphur content of coal.
- Even under a highly conservative NPS, demand for coal for South Korea in 2040 will be over 10 times the average annual production from the Bylong Coal Project.
- South Korea and KEPCO (who is currently responsible for supplying 80% of power to the people of Korea) see strategic advantages in being able to control its own supply of coal i.e. increase the vertical integration of KEPCO.

Matter Raised: Coal Price Used in the Economic Impact Assessment is Overstated

Response: The United States Dollar (USD) coal price assumption which was used in the Economic Impact Assessment (Appendix AE of the Environmental Impact Statement (EIS)) were not provided by Gillespie Economics but were from Wood Mackenzie, a leading global energy, metals and mining research and consultancy group, together with an Australian Dollar (AUD):USD exchange rate of 0.84.

The coal price and currency assumptions have been identified in an independent peer review, commissioned by the NSW Department of Planning and Environment, as being reasonable and consistent with the NSW Department of Trade and Investment's previous advice on expected future thermal coal prices. Recognising the inherent uncertainty in coal prices and exchange rates, sensitivity testing was undertaken for inclusion within the Economic Impact Assessment. However, under all scenarios, the Project will provide significant net benefits to NSW and Australia.

[2] Provides an assessment of where today's policy frameworks and ambitions, together with the continued evolution of known technologies, might take the energy sector in the coming decades.

Matter Raised: Project is Not Financially Viable

The NSW Department of Planning and Environment has previously identified that the financial viability of a project is a risk assumed by the project owners.

Having considered, global and domestic supply and demand, and policy settings, KEPCO is seeking to invest $1.3B in the Bylong Coal Project. It is highly unlikely that a significant component of a $1.3B Project investment would take place and then operations prematurely cease. This is particularly the case as KEPCO's parent company (Korea Electric Power Corporation) is 51% Korean Government owned, with AUD215 billion in assets and annual sales of AUD73 billion. Financing of the Project is underpinned by the Korean Government with the aim being to facilitate the security of electric power supply in Korea. Furthermore, the Korean Electricity Power Corporation is a vertically integrated company in that it has subsidiaries in South Korea i.e. GENCOs, that are responsible for the generation of electricity and have indicated the suitability of coal from the Bylong Coal Project for use in its power generators.

However, to the extent that any risk from premature cessation of the Project exists, it is mitigated by the fact that KEPCO is required to pay a rehabilitation security deposit to the NSW Department of Planning and Environment – Resources and Geosciences (DP&E – DRG) as the holder of a mining authority under the *Mining Act 1992*. This security deposit is held by DP&E-DRG to ensure that the legal obligations in relation to rehabilitation and safety of the site can be met following mine closure. If rehabilitation obligations are not met to the satisfaction of the Minister for Resources, then the security deposit would be forfeited and used by DP&E-DRG to rehabilitate the site to meet the relevant requirements. Following the NSW Auditor General (2017) *Report on Mining Rehabilitation Security Deposits*, DP&E-DRG has updated its security deposit calculation tool to ensure that security deposits cover the full cost of mine rehabilitation. Most other impacts of mining operations do not occur if mining ceases.

With respect to biodiversity offsets, KEPCO will enter into Biodiversity Stewardship Agreements in accordance with the *Biodiversity Conservation Act 2016* for the land based offsets proposed for the Project. These agreements will include the payment of a conservation bond (or similar) which reflects the full cost of implementing the management and mitigation measures for these offset properties.

Matter Raised: KEPCO Does Not and Will Not Pay Tax in Australia Because of Debt Funding, Transfer Pricing and Corporate Head Office Charges

Response: KEPCO has never been required to pay tax in Australia because the Bylong Coal Project is its first Australian Project.

The Bylong Coal Project would be subject to the provisions of Australian tax law and would be required to pay 30% company tax on taxable income.

Debt financing can impact the level of tax deductible debt and change the levels of tax payable. However, under the thin capitalisation rules in Australian tax law, the amount of debt used to fund the Australian operations of foreign entities investing into Australia is limited. The maximum statutory debt limit (safe harbour debt limit) has been reduced from 3:1 to 1.5:1 (on a debt-to-equity basis) for general entities. That is, the maximum debt financing that is tax deductible is 60%.

With regard to transfer pricing and corporate head office charges, there are specific provisions in Australian tax law that require that businesses price their related-party international dealings in line with what is expected from independent parties in the same situation. This is one of the most highly regulated areas of the Australian taxation system.

Matter Raised: Debt Funding Means Company Tax Estimate is Overstated

Response: The greater the level of debt funding, the lower the level of company tax paid. The response to this issue within the Supplementary Information Report provides an estimate of benefits to NSW at different levels of debt funding i.e. 0% to 60%. The IEEFA state that in their experience "*major international corporations that initiate resources projects in Australia* ***always*** *fund such projects with the maximum level of debt allowable so as to lower corporation taxes payable.*" This contrasts with the recent announcement by ADANI that it the Carmichael coal mine and rail project, will be "100 per cent financed through the ADANI Group's resources". Whatever the outcome for the Project, under the scenario where maximum debt funding (60%) is used, the Project would still provide material net benefit to NSW and Australia.

In summary;

- The level of company tax benefits of the Project to NSW were identified in the Economic Impact Assessment at $21M.
- The Economic Impact Analysis understated company tax benefits to NSW, using a company tax rate of 28.5% (a proposed government policy at the time) and attributing only 7% to NSW.
- Using the prevailing company tax rate of 30% and 32% to allocate company tax to NSW as suggested by the NSW Government (2015) Guidelines for Economic assessment of mining and coal seam gas proposals, the company tax benefits of the Project to NSW are $102M.
- Notwithstanding, the major benefit of the Project relate to royalties.
- The method of financing mining Projects is highly uncertain and determined by complex financial, legal and tax question. Consequently, profit loss calculations used in discounted cash flow analysis to estimate company tax payments of projects generally default to 100% equity funding.
- Thin capitalisation rules of the Australian tax office limit the level of debt financing that is tax deductible to 60%.
- KEPCO net income in 2015 was $16B and hence it has the capacity to 100% equity fund the Project. However, in practice the level of debt funding may range from 0% to 60%.
- The maximum allowable debt financing would reduce the estimated company tax benefits by approximately one third.
- However, as identified above the initial estimate of company tax accruing to NSW i.e. $21M, was highly conservative. The revised estimate of company tax benefits of the Project accruing to NSW i.e. $102M, would reduce to approximately $68M under maximum debt funding. Lower levels of debt financing increase the level of tax benefits from the Project to NSW.

Since the Project Economic Impact Assessment was undertaken, mining costs across the industry, and particularly in Australia, have reduced (IEA 2017 World Energy Outlook 2017). A 15% reduction in costs since 2015 would completely offset tax reductions from the maximum allowable level of debt funding.

Matter Raised: Local Employment and Economic Activity Estimates are Questionable

Response: Employment and other economic activity generated by the Project has been estimated using three different methodologies, the DP&E's Local Effects Analysis method, Input-Output analysis and Computable General Equilibrium analysis. The former only estimates direct effects using highly restrictive assumptions. The latter estimate direct and indirect effects.

What is clear, is that there will be significant economic activity benefits to the local economy from Project. The significance of resource extraction projects to regional economies is recognised in the NSW Department of Premier and Cabinet's Regional Economic Development Strategy process that has recently been implemented across NSW (https://www.dpc.nsw.gov.au/programs-and-services/centre-for-economic-and-regional-development/projects/regional-economic-development-strategies/).

Matter Raised: Comparison of Cost Benefit Analysis and Computable General Equilibrium Analysis

Response: The Australia Institute makes a spurious comparison of the net present value from the Cost Benefit Analysis of the Project and Welfare Estimate from the Computable General Equilibrium Analysis. These methods are not measuring the same thing and hence any comparison of results is spurious. However, what the assessments using differing methodologies does show is that utilising a variety of modelling methods and metrics, the Project has significant economic benefits to the local area, NSW and Australia.