



Mt Pleasant: Response to Coal Market Substitution Study

Submission to Independent Planning Commission

Mount Pleasant Optimisation Project SSD 10418

On behalf of the Applicant (MACH Energy Australia Pty Ltd), Ashurst commissioned CRU Consulting to prepare a Coal Market Substitution Study which was submitted to the IPC dated 5th July 2022.

A key finding of this study is that the Project will not become stranded despite significantly declining thermal coal demand in the coming decades given the high calorific value (CV) of its product. The study maintains that high CV coal will be favoured going forward as older power plants retire and the proportion of newer supercritical and ultra-supercritical coal power plants amongst the remaining Asian coal power fleet increases:

“CRU has observed a strong shift towards the use of higher pressure, supercritical and ultra-supercritical coal-fired power plants in key markets in Asia. These plants are typically capable of taking greater proportions of higher-grade coal. Coal-fired power plant retirements are generally targeted at the older subcritical boiler units, which have higher emissions due to lower efficiency. As such, CRU expects most demand destruction in lower grade coal.”
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In IEEFA’s opinion, this view is too simplistic.

Firstly, although IEEFA would agree that older, sub-critical coal power plants will often be most likely to retire earlier as coal-fired power declines globally, it does not follow that this will lead to a shift in demand from lower CV coal towards higher CV products. CRU notes only that such coal-fired power plants are “capable” of using higher proportions of higher-grade coal, not that they are dependent on such coal. Supercritical and ultra-supercritical coal power plants can, and do, run on low CV coal.

Secondly, there are other important factors in play when thermal coal importers consider their fuel sources. Energy security, shipping distance/cost and, most significantly, coal price will see importers continue to seek low CV coal in the long term. The current global energy crisis which has resulted in very high coal prices is now demonstrating this clearly.

¹ Ashurst/CRU. [Coal market Substitution Study](#). 5 July 2022

Supercritical and Ultra-supercritical Coal Plants are Running on Low CV Coal

There are plenty of examples from around Asia where new supercritical and ultra-supercritical use lower-CV coal. Just a few examples are listed below:

- The new Payra ultra-supercritical coal-fired power plant in Bangladesh is known to be fuelled by Indonesian coal (which produces coal with a significantly lower CV on average²). The plant is reportedly to use sub-bituminous coal with CV of 4,700-5,500 kcal/kg³ – well below that of the Mount Pleasant project according to CRU's forecast.
- The first ultra-supercritical coal power unit built in the Philippines uses sub-bituminous coal imported from Indonesia⁴- the world's largest thermal coal exporter.
- The new ultra-supercritical units of the Mae Moh coal power plant in Thailand will use sub-bituminous, low-CV lignite from a local coal mine.

In addition, Vietnam has long been considered a growth market for seaborne thermal coal. Even though the planned roll-out of coal power plants has now been scaled back, Vietnam still has a number of supercritical plants operating and under construction. According to the Australian Government's Office of the Chief Economist, the resulting increase in Vietnam's coal imports in recent years has chiefly been supplied by Indonesia (which supplies coal of lower grade on average than Australia). In its June 2022 Resources and Energy Quarterly report, the Office of the Chief Economist forecasts that, although imports of Australian coal may increase going forward, the main beneficiary will continue to be Indonesia.⁵

Meanwhile, suppliers of low CV thermal coal are seeking new markets, not planning for decline. The Indonesian government has been targeting markets such as Vietnam, Bangladesh and Pakistan in an attempt to diversify its thermal coal export destinations.⁶ This will be key for Indonesia coal exporters if its largest export destination (China) begins to reduce coal imports. China has an enormous domestic coal mining industry that it is seeking to scale up to reduce the need for imports and improve energy security.

A recent study found that expansions to China's domestic coal output combined with coal logistics investments will see its coal imports drop between 26% to 45% between 2019 and 2025.⁷ In June 2022, Moody's Investor Service's metals and mining outlook stated "Large coal-importing countries such as China and India will also seek to ramp up domestic coal production, to enhance energy security and

² Minerals Council of Australia. [Australian Export Thermal Coal: The Comparative Quality Advantages](#).

³ Daily Star. [Indonesian firm to supply coal to Payra power plant](#). 19 June 2019

⁴ Mitsubishi Power. [MHPS receives order for boiler, steam turbine and generator for the Philippines first ultra-supercritical-pressure coal-fired power unit](#). 9 December 2015

⁵ Office of the Chief Economist. [Resources and Energy Quarterly](#). June 2022.

⁶ Reuters. [Indonesia eyes Vietnam as it seeks to diversify thermal coal exports](#). 31 July 2020

⁷ Australian Financial Review. [End of Australia's coal export boom to China is 'imminent'](#). 21 April 2022

reduce reliance on coal imports. Chinese coal production surged 15% in March 2022.”⁸

Lower exports to Indonesia’s key export market of China will leave a lot of coal seeking remaining markets in competition with Australian coal.

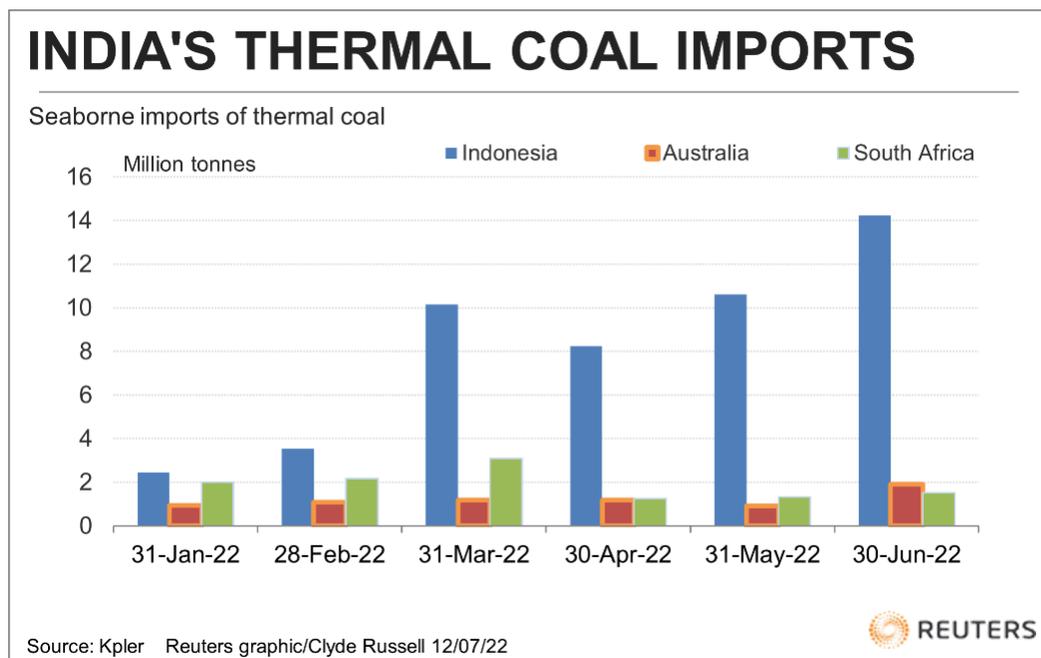
As a result, a greater proportion of supercritical and ultra-supercritical coal power plants amongst the remaining Asian fleet does not necessarily mean demand preference for higher CV coal. As well as shipping distances/cost, a key factor that will determine demand for particular grades of coal will be price. The current global energy crisis that has resulted in record coal prices is making this very clear – thermal coal importers are often highly price sensitive.

Coal Importers Sensitive to Price, Often Favour Low CV Coal

The Office of the Chief Economist’s June 2022 Resources and Energy quarterly report clearly highlights the price sensitivity of some Asian thermal coal importers, stating of India:

“India may gain some relief by increasing imports of displaced Russian coal. However, Russian coal is of a generally higher calorific quality (and price) than the coal typically imported — which may restrain its utility given India’s price sensitivity... At present, India appears to be more interested in drawing greater supply from Indonesia, in growing competition with China.”⁹

Figure 1: India’s 2022 Thermal Coal Imports



⁸ Moody’s Investor Services. [Metals and Mining - Global: Outlook stable as prices and EBITDA retreat from peaks but remain elevated](#). 6 June 2022

⁹ Office of the Chief Economist. [Resources and Energy Quarterly](#). June 2022.

India imported 1.9 million tonnes of Australian thermal coal in June 2022, down 44% from the 3.39 million tonnes it imported in June 2021. At the same time, it increased June 2022 imports of cheaper, lower CV coal from Indonesia to 14.25 million tonnes, more than three times higher than the 4.37 it imported in June 2021 (Figure 1).¹⁰

India's clear preference for cheaper lower CV coal would appear to undermine CRU's assertion that thermal coal importers will shift towards higher CV coal, thereby assuring the Mount Pleasant mine's long-term future.

CRU's notion that thermal coal importers will turn towards higher CV coal going forward is too simplistic. Other factors clearly play a role, most importantly price but also shipping distances, potential for weather disruptions and a need to diversify sources for energy security reasons. The June 2022 Resources and Energy quarterly report states:

*"The Indian Government has stated it remains committed to diversifying its coal supply and reducing its dependency on Australian supply, which is relatively expensive and vulnerable to weather disruptions."*¹¹

S&P Global recently noted that the surge in Australian coal prices following the invasion of Ukraine was largely prompted by demand from the EU and Japan which have pledged to ban coal imports from Russia.¹² The Office of the Chief Economist also made clear in June 2022 that "a larger share of Australian coal will be directed to Europe" and that Japan and South Korea will also seek to import more Australian coal.¹³ These territories are less price sensitive than developing Asian nations. In its Coal Market Substitution Study, CRU forecasts that Europe, Japan and South Korea are amongst the territories that will see a very significant fall in thermal coal demand as their power systems transition away from fossil fuels.

Meanwhile price-sensitive buyers in developing Asian nations will look for cheaper alternatives. Across the Asian seaborne thermal coal market, buyers have recently been turning towards cheaper Russian and Indonesian coal at the expense of Australian coal.¹⁴ According to CRU's study, remaining long term demand for thermal coal will be centred on India and Southeast Asia but these are the territories that are most price sensitive and least likely to shift towards high CV coal in the long term.

Even as global demand for thermal coal starts to decline significantly, it cannot be expected that coal prices will decline and remain low. Instead, they are likely to remain volatile due to recurring mismatches in demand and supply as the industry declines. As a result, price will remain the key factor determining where importers

¹⁰ Reuters. [Asia imports of thermal coal, LNG hold up despite record prices](#). 12 July 2022

¹¹ Office of the Chief Economist. [Resources and Energy Quarterly](#). June 2022.

¹² S&P Global. [Australian coal prices slump in June as cheaper Russian, Indonesian cargoes lure away buyers](#). 15 June 2022

¹³ Office of the Chief Economist. [Resources and Energy Quarterly](#). June 2022.

¹⁴ S&P Global. [Australian coal prices slump in June as cheaper Russian, Indonesian cargoes lure away buyers](#). 15 June 2022

source their coal from into the long term, especially given that renewable energy will continue to get cheaper.

In April 2022, Moody's noted that an extended period of high coal prices will make renewable energy an even more attractive alternative and lead to an acceleration in the long-term decline of coal.¹⁵ In July 2022, India's power minister R.K. Singh stated that the current energy crisis resulting from the invasion of Ukraine will hasten the end of the fossil fuel era.¹⁶ Nations and power generators seeking to meaningfully reduce their carbon emissions will not turn from low CV coal to high CV coal. Instead, they will transition from low CV coal to ever-cheaper renewable energy.

¹⁵ Moody's Investor Services. [Coal Mining – Global: High prices drive earnings but would hit affordability and demand if sustained](#). 11 April 2022

¹⁶ Bloomberg. [Energy Crisis Is Hastening End of Fossil Fuel Era, India Says](#). 13 July 2022

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