

In this briefing paper, the Institute for Energy Economics and Financial Analysis (IEEFA) provides a summary of recent global thermal coal trends that will impact the Australian coal industry. While the A\$ weakness against the US\$ has provided some relief to Australian producers, fall in the coal price towards US\$80/t has effectively offset this. The coal price weakness reflects both increased supply and lower than expected demand profiles in China, Europe and the US.

The exchange rate for AUD vs USD (US\$0.89): Down 18% in two yearsⁱ



The exchange rate: Much as the thermal coal price has been weak over the last two years, down 35% from its peak to US\$80/t (Newcastle 6000kcal FOB), the decline in the A\$/US\$ has also been pronounced. Over two years, the A\$ is down 16% (albeit, it is up 35% from 65c five years ago!). Given Australian coal mining costs are largely A\$ denominated, this is significantly lowering the cost-structures of Australian producers. Lower wages and productivity gains are also helping lower Australia’s average cost position from one of cash-breakeven for thermal coal in 2013.

Benchmark Australian Thermal Coal was US\$90/t by Dec’2013ⁱⁱ but fell to US\$80/t in 1QCY2014



Thermal Coal Prices: Prices rallied 10% in 4QY2013 to US\$90/t from a low of US\$82/t in Aug’2013, but fell back to ~US\$80/t in Feb’2014.ⁱⁱⁱ Most broker forecasts for 2014-15 are bunched US\$85-90/t, with a steady

stream of downgrades to longer term forecasts over 2013. Citi's Seth Kleinman stated "lower energy prices possibly for decades to come ... scalable renewable resources and distributed energy that undermine many assumptions about King Coal's sway in the decade to come."^{iv}

Coal mines 'face price death': Peabody Energy (US) CEO Greg Boyce states "It's our view that at today's current pricing there is still production coming out of both the US and Australia that is not sustainable. We should see those rationalisations continue to unfold during the course of 2014." The coking coal price fell to a six-year low in Jan'2014 to US\$127 a tonne.^v

Consistent with this, BHP-Mitsubishi announced it would cut 230 jobs from its Saraji coking coal mine in Queensland.^{vi}

Maules Creek: Community opposition to prevent this A\$767m, 11Mtpa NSW coal development continues, despite environmental and legal challenges falling Whitehaven's way in late 2013.

The Galilee Basin: Despite continued government approvals for the mining, rail and port developments of Adani, GVK and China First, the financial close for these projects keeps getting deferred. Both Indian firms report rising indebtedness and continued losses in their 3QFY2013/14. The approval for dumping of dredge materials in the reef created significant public controversy.

The shrinking demand profile for thermal coal

China: Central economic planner the National Development and Reform Commission has forecast that China's coal consumption growth will slow to 1.6% in 2014, down from 2.6% growth in 2013, which is a huge slowdown relative to the 10% pa growth seen in China's coal demand last decade.

On our forecasts, China coal demand will slow further, peaking 2016 and actually declining from 2017. This is predicated on continued improvements in energy efficiency, plus huge installs over 2014-2018 of hydro (18GW pa), solar (12-16GW), wind (15-16GW), gas (8GW) and nuclear (5GW).

The other key driver is the economic transformation of China. ANZ CEO forecast China's GDP growth would slow to say 7% in 2014, with "Greater reliance on services will support consumer demand and also allow China to move to a more sustainable growth trajectory and away from resource and pollution-intensive activities..."^{vii} Lower growth with a lower energy intensity lowers coal demand.

Annual yearly increase in Chinese coal consumption^{viii}



Source: BP statistical review. Chinese preliminary data. Platts

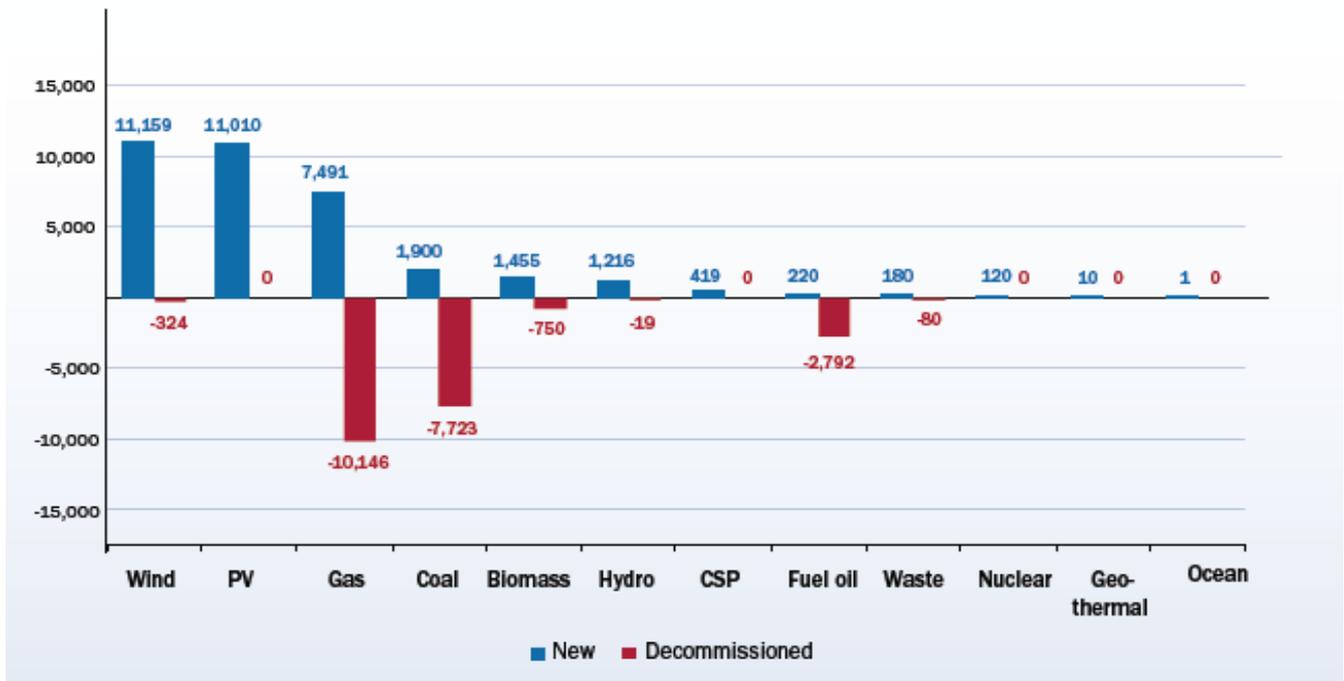
Why is this so important? China produces and consumes half the world's thermal coal.

In Feb'2014 the western Chinese province of Sha'anxi has announced an extremely ambitious coal consumption reduction target, committing to burning no more than 138Mt in 2017 to cut pollution. The province burned 162Mt in 2011, and has experienced breakneck growth in coal consumption of 13% per year since 2006.^{ix}

Europe: The European Wind Energy Association published its estimates of newly installed vs decommissioned electricity capacity in Europe in 2013. While there has been much discussion about a resurgence in coal fired generation, the 1.9GW of new coal installs is dwarfed by the 7.7GW of decommissioned coal fired capacity.

Wind, solar and hydro was more than 100% of the net new capacity installed in 2013. With electricity demand continuing to decline in Europe due to austerity and energy efficiency measures, the continued expansion in electricity supply means that German wholesale electricity prices hit a decade low in 1QCY2014.

Newly Installed and Decommissioned Electricity Generation Capacity in Europe in CY2013^x



Source: European Wind Energy Association, February 2014, "Wind in Power"

US coal fired capacity continues to fall: The Brattle Group in Nov'2013 published its latest review of the US Electricity sector, concluding: "In our October 2012 study, we found that 59 to 77 GW of coal plant capacity are likely to retire over the next 5 years, which is approximately 25 GW more than we previously estimated in 2010 despite somewhat more lenient environmental regulations in 2012."^{xi}

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ⁱ <http://au.finance.yahoo.com/echarts?s=AUDUSD%3DX#symbol=AUDUSD=X;range=1d>

ⁱⁱ <http://www.indexmundi.com/commodities/?commodity=coal-australian&months=60>

ⁱⁱⁱ <http://www.reuters.com/article/2014/01/30/markets-emerging-commodities-idUSL5N0L32TC20140130>

^{iv} "Seth Kleinman et al, Citi Research, "Commodities Inflection Point", 18 November 2013.

^v http://www.businessspectator.com.au/news/2014/2/3/energy-markets/coal-mines-face-price-death?utm_source=exact&utm_medium=email&utm_content=571943&utm_campaign=cs_daily&modal=pt=

^{vi} <http://www.afr.com/Page/Uuid/355c7b26-8fad-11e3-afdf-98579abc8d65>

^{vii} AFR "Westpac bulls in the China shop" Tony Boyd, 6 Feb 2014.

^{viii} <http://www.greenpeace.org.uk/newsdesk/energy/data/endless-rise-chinese-coal-use-slows-significantly-2013>

^{ix} <http://energy.chinadaily.com.cn/meitan/2014/0113/11411.html>

^x http://www.ewea.org/fileadmin/files/library/publications/statistics/EWEA_Annual_Statistics_2013.pdf

^{xi} http://www.brattle.com/system/news/pdfs/000/000/584/original/Coal_Plant_Retirements_-_Feedback_Effects_on_Wholesale_Electricity_Prices.pdf?1386628173