COMMODITY Insights Bulletin

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Cm METALLURGICAL COAL

Metallurgical Coal (Q2, 2014 and Q3, 2014)

Insight: The key will be demand growth

When do we turn the corner? That seems to be the question I hear most often when I speak with colleagues in the coal industry. "Roy, when do you think we will have a sustained rebound?"

Like many in the industry, I am bullish on the long-term prospects of coal in general. Shorter-term, we are seeing improvements in pricing – albeit not at the levels we'd experienced just a few years ago.

As always, the key will be demand growth – greater economic and infrastructure development (roads, buildings, etc.). Government policies supporting that economic growth would go a long way towards building a ripple effect through a number of sectors, including metallurgical coal.

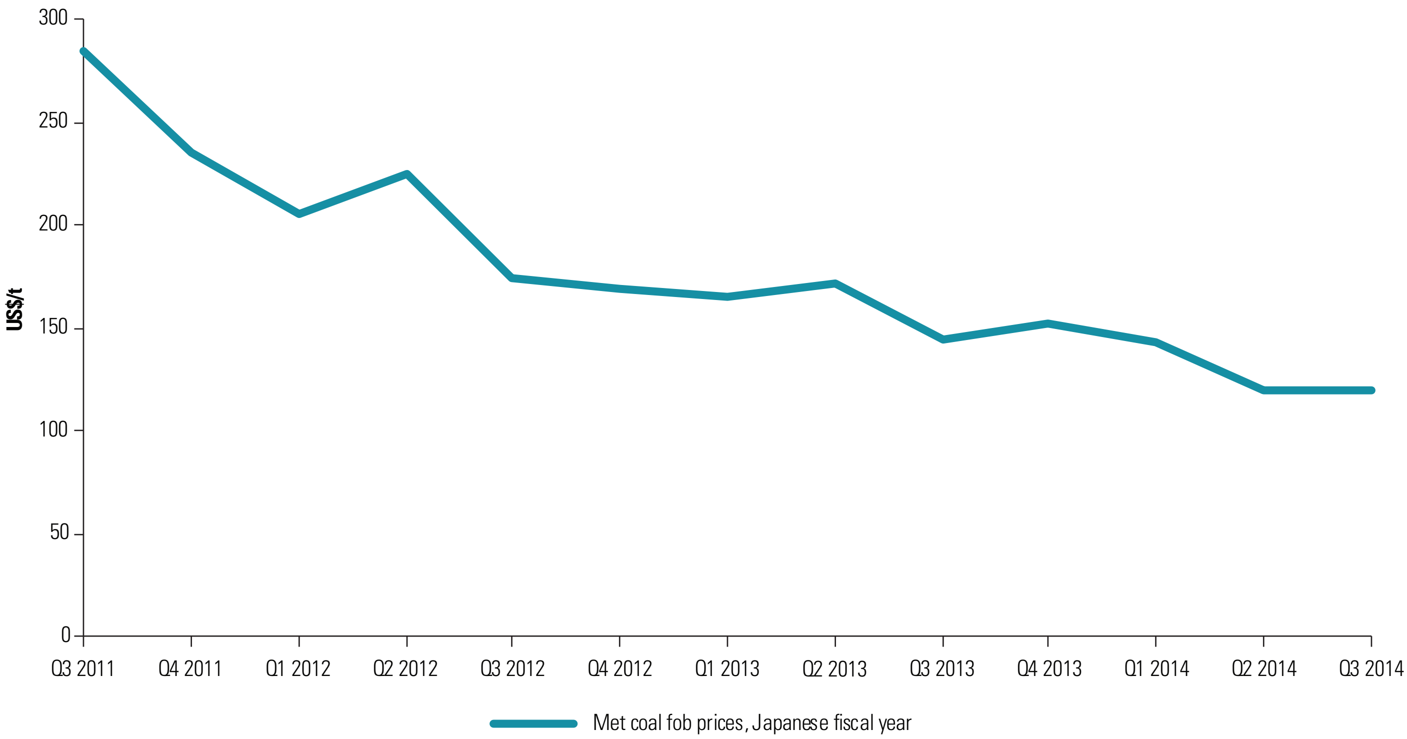
Over the past many months, it has been my pleasure to speak with a number of executives around the industry. I have witnessed difficult decisions, continued optimism and resolve as the industry continues to experience headwinds.

> "As always, the key will be demand growth – greater economic and infrastructure development."
>
> **Roy Hinkamper**
> KPMG in the US

The optimism and resolve come from prior experience with the industry's cycles, and a consistent belief in the growth and development of economies around the world. As the industry works through these headwinds, companies are continuing to look to the future, and make long-term decisions to preserve their investments in people and operations.

With the type of resolve I've seen, I believe that the optimism is well founded and will sustain the industry.

Figure 1: Met coal prices (Q3, 2011–2014)



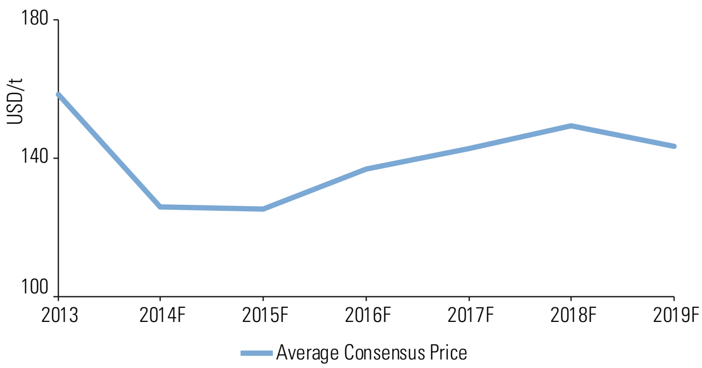
Sources: "Coking coal benchmark settled at $120/ton FOB for the third quarter: Coke and coking coal highlights", Metal Bulletin Research, 1 July 2014; "Resources and Energy Quarterly, September 2014", Bureau of Resources and Energy Economics, Australian Government; "Japanese steel mill sets Q4 met coal price with Australian miners at $152/mt FOB, up $7/mt", Platts, 20 September 2013; "Anglo American settles Q1 coking coal with Asian steel mills at $143/mt", Platts, 19 December 2013; accessed October 2014.

Price outlook[1]

Contract prices for hard metallurgical (met) coal for delivery in Q3, 2014 settled at about $120/ton (US dollars) (US$), unchanged from Q2, 2014. This can be mainly attributed to the increased production from existing miners looking to reduce the per unit production cost coupled with decline in met coal demand from China, which witnessed a slowdown in its real estate sector. The year also saw some miners close or cut back production as a result of declining met coal prices. Some companies have also shifted their product mix to include more thermal coal.[1]

Starting 2015, Chinese import restrictions could affect met coal imports from Australia to China. However, the lack of availability of met coal for export purposes from the US, which was the second-largest met coal exporter after Australia in 2013, could still make Chinese importers rely on Australian coal for imports. Also, the lower quality of Chinese domestic coal and the Indonesian coal makes Australian coal a more economical option for Chinese steel players. Demand from India is also expected to remain significant which is strongly developing its infrastructure. The coalition of these forces is expected to pull up met coal prices starting 2016 and reach about US$150/ton in 2018, before declining again.[1]

Figure 2: Met coal prices (2013–2019F)

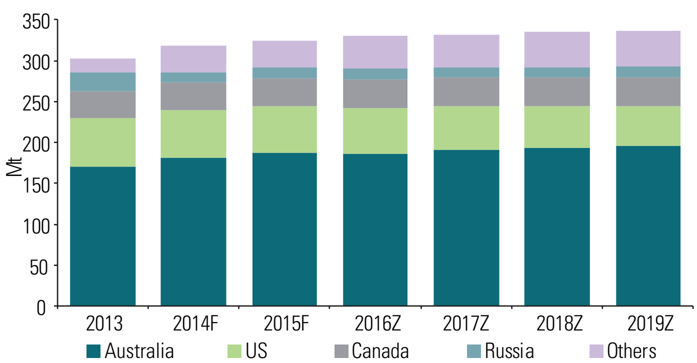


Sources: "Resources and Energy Quarterly, September 2014", Bureau of Resources and Energy Economics, Australian Government; J.P. Morgan Cazenove – Poland metals & mining: JPM lowers commodity prices, revising, 21 October 2014; UBS Research – Metals & mining commodity update "Q3 preview; UBS revises comm", 15 October 2014; BMO Capital Markets – Mining & commodity roundup (comment), 15 October 2014; via Thomson Research/ Investext, accessed October 2014; KPMG analysis.

Supply and demand[2]

Supply

Figure 3: Global met coal exports (2013–2019Z)



Source: "Resources and Energy Quarterly, September 2014", Bureau of Resources and Energy Economics, Australian Government; KPMG analysis.

F: BREE forecast, Z: BREE projection

- Met coal exports from Australia, the world's largest exporter of met coal, are expected to increase by about 6.5 percent y-o-y (year-over-year) in 2014 as per the Bureau of Resources and Energy Economics (BREE), Australia. This can be primarily attributed to the completion of new projects, which include the Caval Ridge project owned by BHP Billiton Mitsubishi Alliance's (BMA) and North Goonyella expansion project owned by Peabody Energy. Companies were also looking to reduce the net per unit production cost to match the ongoing low met coal prices. They increased production to reduce per unit cost through economies of scale. This increased production is reflected in the 2014 production forecast for Australia.[2]
- Moving ahead, the Australian met coal producers are expected to increase production due to the commissioning of projects in the pipeline. A number of projects, such as Yancoal's Ashton South East opencut expansion, Whitehaven's Maules Creek and Peabody Energy's Metropolitan expansion (all three to be completed by 2015); BHP Billiton's Appin Area 9 and Anglo American's Grosvenor (both to be completed by 2016); Aquila Resources and Vale's Eagle Downs (the project to be completed in 2017), are expected to boost production. However, the qualitative coal import restrictions (discussed in the demand section), coal import tax (both put by China) and Indonesia's free trade agreement (FTA) with China pose key risks to the Australian met coal industry.[3]
- Coal exports from the US are expected to decline as most of the mined met coal is expected to be consumed

[1] "Resources and Energy Quarterly, September 2014", Bureau of Resources and Energy Economics, Australian Government; J.P. Morgan Cazenove – Poland metals & mining: JPM lowers commodity prices, revising, 21 October 2014; UBS Research – Metals & mining commodity update "Q3 preview; UBS revises comm", 15 October 2014; BMO Capital Markets – Mining & commodity roundup (comment), 15 October 2014; Barclays – China import tax – glass more than half full for ASEAN producers, 14 October 2014, via Thomson Research/ Investext, accessed October 2014

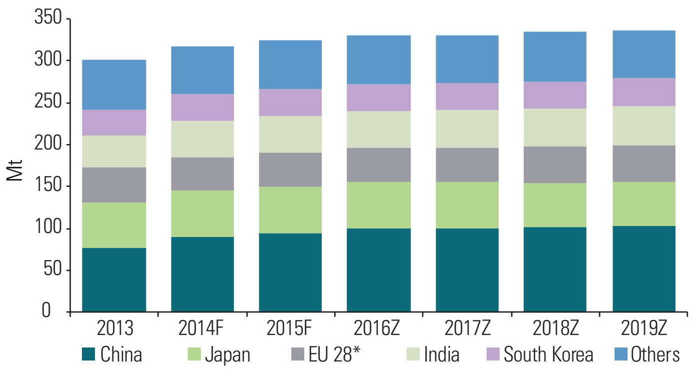
[2] "Resources and Energy Quarterly, September 2014", Bureau of Resources and Energy Economics, Australian Government

[3] Barclays – China import tax – glass more than half full for ASEAN producers, 14 October 2014, via Thomson Research/ Investext, accessed October 2014

domestically by the country's growing steel industry. The industry, in turn, is expected to feed the growing automotive, energy and construction sectors.[4] This is expected to lead to a 3.3 percent y-o-y decline in met coal exports from the US, in 2014. Exports from Canada are expected to grow about 3 percent y-o-y in 2014, remaining constant in 2015 before again increasing about 2.9 percent y-o-y in 2016. Most of the coal from the country is expected to enter the emerging markets. Installation of fresh met coal mining capacity is expected to stay limited other than in Australia. This is mainly due to the lower prevailing prices of met coal and high operating costs that the industry is currently witnessing.[2]

Demand

Figure 4: Global imports of met coal (2013–2019Z)



Source: "Resources and Energy Quarterly, September 2014", Bureau of Resources and Energy Economics, Australian Government; KPMG analysis.

F: BREE forecast, Z: BREE projection

*Met coal production by the European Union (EU) starting 2013 includes production from Croatia as well which was included as the 28th country in the EU on 1 July 2013.

- Met coal imports by China, the world's largest met coal importer, have been high in 2014, driven by the country's fast-growing steel markets and the relative cost advantage of imported coal as compared to domestically mined coal. Met coal imports by China are expected to grow by almost 17 percent y-o-y in 2014. To improve the competitiveness of the domestic coal industry in relation to imports, China has recently introduced two regulations:
  - First is qualitative restrictions that state that imported coal should have low sulfur and ash content. The limit has been set at less than 1.5 percent of sulfur and below 30 percent of ash.
  - Second, a 3 percent import tax has been levied on coking coal and anthracite. This could go up to as much as 6 percent for thermal coal.
- These measures could limit the amount of coal China imports from Australia, leading to a less-aggressive growth starting 2015. The country's imports are expected to grow only 5.6 percent y-o-y in 2015.[2]
- Met coal imports by India are expected to grow significantly driven by the country's growing steel industry. India is expected to develop its infrastructure at a quick pace under the new government, for which significant steel production would be required. Thus, met coal imports as per BREE, are expected to improve by about 13.2 percent in 2014. Though, the country has some met coal production, most of the demand is expected to be met by imports. Low met coal prices, along with import restrictions by China, should further boost met coal imports by India.[2]
- Imports by Japan and South Korea are expected to grow moderately by 1.9 percent and 3.2 percent y-o-y, respectively, in 2014. Imports by European Union are expected to decline by 4.8 percent y-o-y in 2014 due to the ongoing lower steel demand from the region. Going ahead in the medium term, the trend for met coal demand is expected to stay similar to that in the previous decade. A major share of the global demand for met coal is expected to come from the emerging economies, whereas the demand from the developed economies is expected to stay restrained.[2]

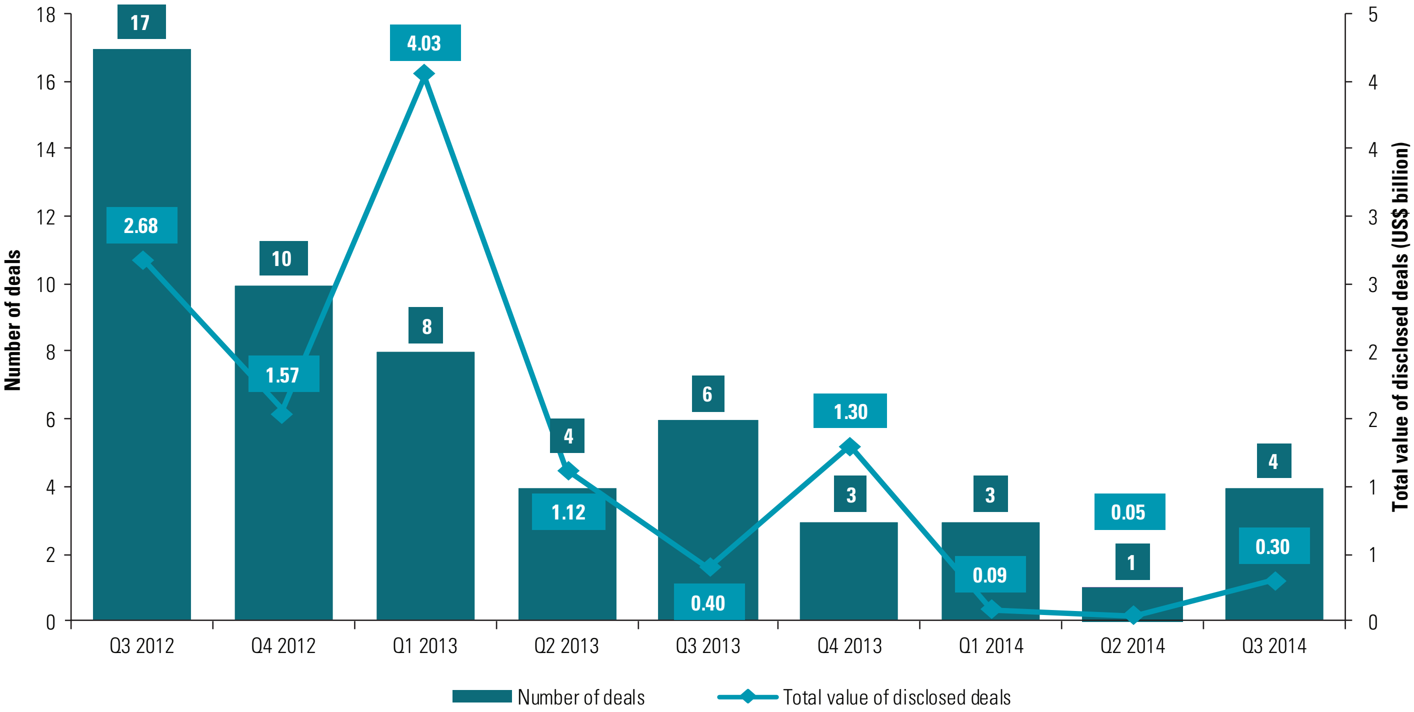
4 "Steel Industry Outlook: US Shows Resilience, China Lags", Zacks, http://www.zacks.com/commentary/34970/steel-industry-outlook-us-shows-resilience-china-lags, 22 October 2014, accessed October 2014

Key developments

Ownership changes[5]

During Q2, 2014, the total valuation of major deals announced in the met coal industry declined 49 percent quarter-over-quarter to US$0.05 billion from US$0.09 billion in Q1, 2014. The total valuation of M&A then increased 552 percent quarter-over-quarter to reach US$0.30 billion in Q3, 2014. The number of deals announced during Q2, 2014 fell to one from three in Q1, 2014, increasing to four in Q3, 2014.

Figure 5: Value of major deals announced in the coal industry



Source: Deals: Search, Mergermarket, accessed October 2014; KPMG analysis.

Table 1: Top met coal deals announced in Q2, 2014 and Q3, 2014

Date announced	Target (Nation)	Acquirer (Nation)	Status	Value of transaction (US$ million)	Stake %
12 Sep 14	Monte Oro Resources and Energy Inc. (Philippines)	Apex Mining Company Incorporated (Philippines)	Closed	117	N/A
4 Sep 14	Decker Mine (USA)	Ambre Energy Limited (Australia)	Announced	67	50
30 Jul 14	Rio Tinto Coal Mozambique (Australia)	International Coal Ventures Private Limited (India)	Announced	50	N/A
15 Jul 14	PBS Coals Limited (USA)	Corsa Coal Corp. (Canada)	Closed	60	100
16 Apr 14	Draco Resources, Inc. (USA)	Armco Metals Holdings Inc (USA)	Announced	46	100

Source: Deals: Search, Mergermarket, accessed October 2014

5 Mergermarket database, accessed October 2014

Regulatory updates

The regulations introduced during Q2 and Q3, 2014 were introduced by China to promote the country's domestic met coal prices and making domestic coal more competitive in relation to imports.

Table 2: List of recent regulations in the met coal industry during Q2, and Q3, 2014

Country/region	Regulation/topic	Description
China	Import tax on coal[6]	• From 15 October 2014, China imposed a 3 percent import tax on coking coal and anthracite, as a move toward protecting its domestic prices. • Australian and Mongolian coking coal producers are expected be most affected by the import tax in China.

Project updates

Table 3: Cross-section of global met coal projects*#

Project	Country	Owners/ Operators	Capex (US$ million)	Potential start year	Full capacity (Mtpa)	Progress and updates
Appin Area 9	Australia	BHP Billiton	845	2016	3.5	On schedule and budget; 72 percent complete as on 30 September 2014
Arctos coal projects	Canada	Fortune Minerals Limited/ POSCO	787[7,8]	N/A	5.4	Fortune Minerals welcomes renewed effort to conclude the Klappan Strategic Initiative (KSI) in September 2014; KSI being held between the British Columbia government and the Tahltan Nation
Belvedere underground	Australia	Vale	2,400[1]	2016	10	Project still in an early stage of development.
Belview coal deposit	Australia	Stanmore Coal Limited	869[9]	2017	N/A	Stanmore secures a second tranche of exploration funding for the project from Taiheiyo Kouhatsu and Japan Oil, Gas and Metals National Corporation (JOGMEC)
Caval Ridge	Australia	BHP Billiton Mitsubishi Alliance (BMA)	3,740[2]	2014	5.5	Commissioning commenced in Q1, 2014, ahead of schedule; mine operated at capacity and produced 705Kt of coal in Q3, 2014
Clyde Park Coal Deposit	Australia	Guildford Coal Limited/ Tiaro Coal Limited	~750	2015	10	Sino Construction Ltd. proposes to make an off-market takeover bid for 100 percent of Guildford Coal Limited; offer comprises 1 Sino share for every 4.5 Guildford shares valuing each Guilford share at 6.13 US cents
Daunia	Australia	BHP Billiton Mitsubishi Alliance (BMA)	1,352[4]	2013	4.5	Project completed in Q3, 2013; ramp up successful; operated at record capacity and produced 628Kt of coal in Q3, 2014

6 "China reinstates import tax on coal", 9 October 2014, via Factiva, accessed October 2014

Table 3: Cross-section of global met coal projects*# (continued)

Project	Country	Owners/ Operators	Capex (US$ million)	Potential start year	Full capacity (Mtpa)	Progress and updates
Eagle Downs hard coking coal	Australia	Aquila Resources/Vale	1,130[1,5]	2017	5.9	Aquila and Vale have resolved differences and aligned to complete the project on time
Grosvenor West Coal Deposit	Australia	China Kingho Energy Group Co. Ltd.	905[5,11]	2016	5.5[10]	Carabella Resources Ltd. to be removed from the official list of ASX Ltd due to acquisition by Wealth Mining Pty Ltd under its takeover offer announced on 19 December 2013
Hay point stage three expansion	Australia	BHP Billiton Mitsubishi Alliance (BMA)	3,010[2,6]	2015	Increased port capacity by 11Mtpa and reduces storm vulnerability	On revised schedule and budget; project 91 percent complete as on 30 September 2014
Moatize II	Mozambique	Vale	2,068	2015	11	Project on time and budget; reached a new phase of electro mechanic assembly stage in June 2014
Ovoot Coal Project	Mongolia	Aspire Mining Limited	1,205[12]	2017[13]	5[13]	Mongolian Parliament approves the new National Rail Policy in October 2014; policy allows for extension of railway from Erdenet to Ovoot and to the Russian border at Arts Suuri; this is expected to provide better logistical support for evacuating the coal from the mine
Ravensworth North colliery	Australia	Glencore plc/ Itochu Corp.	1,400	2013	8	First stage of the 8 Mtpa Ravensworth North thermal coal operation completed in 2013

1 Excluding the EPCM and contingency costs

2 Excludes announced pre-commitment funding

3 As per BHP Billiton 2013 Annual Report, the actual capex incurred by BHP Billiton is about US$483 million (subject to finalization). US$966 million is derived on the basis that the capex is equally shared by BHP Billiton and Mitsubishi who both own a 50 percent share each in the project

4 As per BHP Billiton 2013 Annual Report, the actual capex incurred by BHP Billiton is about US$676 million (subject to finalization). US$1,352 million is derived on the basis that the capex is equally shared by BHP Billiton and Mitsubishi who both own a 50 percent share each in the project

5 Australian dollar

6 As per BHP Billiton operational review for quarter ended September 2013, the actual capex incurred by BHP Billiton is about US$1,505 million (subject to finalization). US$3,010 million is derived on the basis that the capex is equally shared by BHP Billiton and Mitsubishi who both own a 50 percent share each in the project

7 Canadian dollars

8 Capital costs to achieve full production is C$788.6 million during the first three years of the project and includes the mine, process plant and all required on-site and railway infrastructure

9 Start-up capital requirement for a single longwall operation

10 ROM production

11 Capital cost expenditure for owner operations. Includes capex for surface infrastructure and related costs, coal handling and preparation plant and mining equipment

12 As per ASX release "Ovoot Coking Coal Project Confirmed as one of the Lowest Cost Potential Exporters of Coking Coal into China" dated 6 December 2012. Capex excluding capital contingencies

13 Following the completion of two Pre-Feasibility Studies completed in 2012, the Company has adopted a plan to develop the Ovoot Project in line with the commissioning of the Erdenet to Ovoot Project Railway. The Ovoot Development Plan (ODP) relies on the use of contractors, and production of bypass coal which does not need to be washed. The ODP estimates a capital expenditure requirement of US$144 million including contingencies to commence mine production in 2017 with an initial production of 5Mtpa saleable high quality coking coal.

The above table includes projects with capex exceeding US$750 million

* The list is not exhaustive and contains only a limited number of projects.

Source: Intierra; Company Reports

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Roy Hinkamper has served mining industry clients for well over a decade through assisting with improving operations, addressing financial challenges and improving both operational and financial controls.

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