PETROVIETNAM OIL & GAS GROUP

PETROVIETNAM POWER CORPORATION

DAILY NEWS

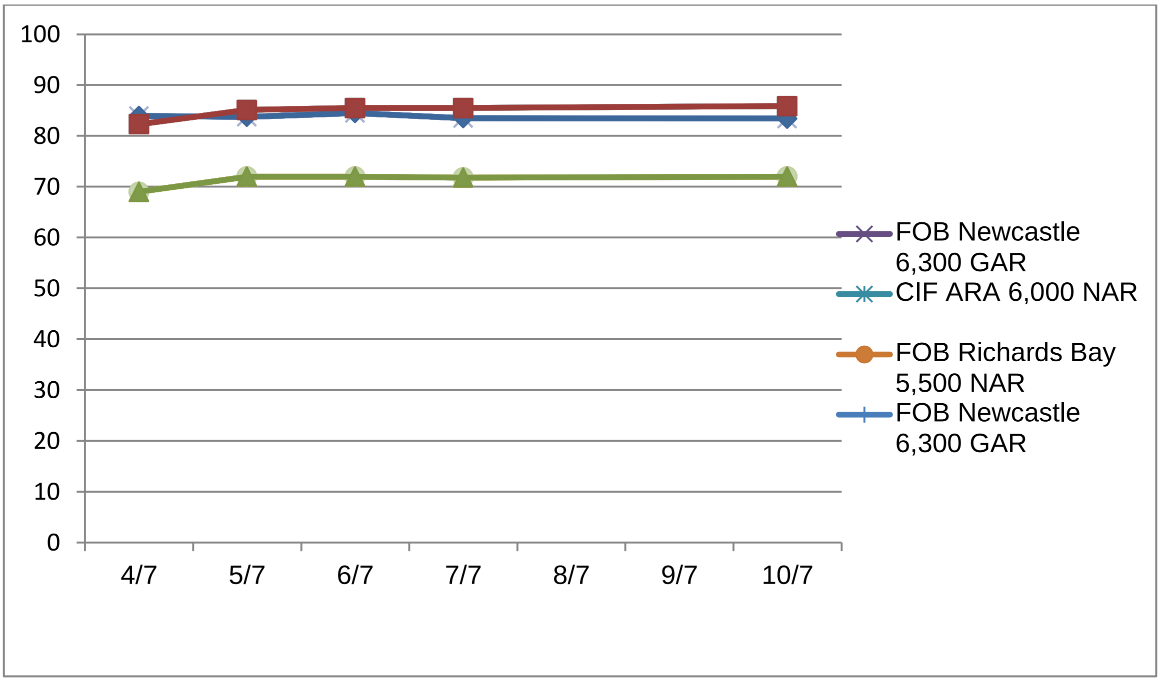
Date 14/07/2017

INTERNATIONAL COAL PRICE ASSESSMENTS

Daily prompt physical thermal coal assessments	Window 7 – 45 day	+/-	Window 90 - day	+/-
FOB Newcastle 6,300 GAR	83.40	- 0.10	82.90	+ 0.10
CIF ARA 6,000 NAR	85.85	+ 0.35	84.00	- 0.20
FOB Richards Bay 5,500 NAR	72.00	+ 0.20	N/A	N/A
FOB Kalimantan 5,900 GAR	N/A	N/A	71.00	+ 0.00
FOB Kalimantan 5,000 GAR	N/A	N/A	55.25	+ 0.00

China Coal Assessment	USD/tons	+/-	NDT/tons	+/-
PCC6 (CFR South China 3,800 NAR)	45.60	- 0.20	310.15	- 0.09
PCC7 (CFR South China 4,700 NAR)	61.00	- 0.30	414.90	- 0.34
PCC8 (CFR South China 5,500 NAR)	74.70	+ 0.20	508.08	+ 3.42

DAILY PROMPT PHYSICAL THERMAL COAL ASSESSMENTS IN 2017



(Source: Platts Coal Trader International – Date 10/07/2017)

NEWS

Muted growth forecast for Europe's mining industry

Mining and metals companies operating in Europe are set to remain in recovery mode, as a sluggish recovery in mineral prices keep investment activity subdued, while environmental regulations will pose headwinds for coal-producing countries. BMI Research said on Thursday that mineral prices were unlikely to recover over the coming quarters, citing a drop in Chinese demand owing to an economic slowdown in that country. Poor short- to medium-term growth prospects in Europe's two mining powerhouses, Ukraine and Russia, over the next five years would further hinder mining development in the region. "As a result, mining companies will remain cautious moving forward and will focus on improving balance sheets and protecting themselves from potential price volatility, rather than investing in greenfield projects," the Fitch Group company stated.

One of the greatest challenges for mining companies over the next couple of years is environmental regulations at EU level. BMI warned that the coal sector would particularly fare badly, owing to the industry's large contribution to global carbon emissions and the growing role of renewable sources of energy generation. The European Commission is keen to reduce regional reliance on coal-fired power plants in a bid to cut pollution levels – underpinned by EU-wide 2020 and 2030 emissions targets, as well as the climate commitments that were agreed to at the UN climate summit in Paris in 2015. However, BMI said it expected opposition to plans to phase out coal-fired capacity from Eastern European countries. For example, the Polish government announced in early 2017 that it aimed to add 10 GW of coal-generated energy capacity by 2025 by subsidising power producers to keep their plants available as a means of meeting increasing domestic energy demand and boosting the economy as a whole. These plans would clash with the European Commission's Energy Market Reform Plan, or 'winter package', which commits the EU to reducing carbon emissions by 40% before 2030, BMI said. Meanwhile, BMI considers Finland and Turkey as the region's mining 'growth stars'. Turkey's mining industry would benefit from the government's commitment to grow the country's economy to one of the world's ten largest by 2030. To boost investment in mining, Turkey has increased the share of investment funds allocated for the energy and mining sectors by 7% to 6.7-billion Liras for the development of six new projects. The Finnish government has also sanctioned a $266-million investment to revive nickel mining. A notable trend in the European mining landscape will be the decline of the Russian mining industry owing to subdued prices in key commodities produced, a stringent regulatory environment and elevated political risk. "Our negative price outlook for nickel, coal and iron-ore, which together account for almost 40% of the Russian mining industry (excluding uranium), means mining companies in the country, including the largest domestic miner Norilsk Nickel, will see tight margins and subdued output in the coming years . As a result, average domestic production growth over 2017 to 2021 for nickel and iron-ore will hover around 1% while coal production growth will near 2%, half the growth rate witnessed over the previous five years," BMI stated.

World's most coal-fired power plant projects in 4 Asian countries

China, India, Indonesia and Vietnam have the world's four biggest coal-fired power plants in pipeline. Together, they represent 82 per cent of the 718 units globally under construction. Two Asian countries, China and India, account for the majority of an estimated 2,457 new coal-fired power stations either planned or in construction worldwide, as per the Energy and Climate Intelligence Unit, UK. While China has 384 coal power plants under construction, India has 149. Other growing Asian economies like Indonesia and Vietnam have 32 and 24 coal power plants under construction, respectively. The rest of the world, on the other hand, has 129 coal power plants under construction. China also has 795 proposed coal power plants, whereas India has 297, Indonesia has 87 and Vietnam has 56. The rest of the world has 504 proposed coal power plants in the offing. Together, China, India, Indonesia and Vietnam have pipelines of 1,824 coal power plants either planned or under construction, according to the Energy and Climate Intelligence, UK. China is looking to peak its overall coal consumption by 2020. The country's coal-fired power generation has fallen since 2013 and old coal-fired plants are being shut. China is also ramping up its renewable and nuclear power. India is adding 15-20GW of coal capacity annually, although some 390GW of coal projects from 2010-2015 have also been cancelled. The country also has ambitious objectives for wind and solar energy, targeting an additional 140GW wind and solar capacity by 2022. Both nations, however, are also experiencing the fallout of being dependent on coal for energy production. In both China and India air pollution has become a major environmental concern. Curbs such as India’s carbon tax on coal would be expected to impact investment decisions for new coal power plants.

Banpu expects 20% growth in revenue

Banpu Plc, Thailand's largest coal producer, expects 2017 revenue to grow by 20% from US$2.26 billion (76.9 billion baht) last year on the back of rising global coal prices, according to chief executive Somrudee Chaimongkol. She said that while many countries have developed renewable power projects over the past two years, demand for coal-fired power is still growing steadily, enabling Banpu to reap higher revenue as coal prices climb. The company forecasts an average sales price for coal of $63 a tonne this year, up 20% from last year's $51.50, pushing coal sales revenue higher despite flat sales volume. Ms Somrudee said Banpu has agreed to deals for selling 21 million tonnes of coal in advance. Of the total, 60% is committed at a fixed price to secure revenue. Demand for coal from China's power-generating system is expected to be even higher next year as major reservoirs need to discharge little water to prevent floods, forcing the operations of major hydropower plants to be automatically suspended, Ms Somrudee said. She said there were numerous mergers and acquisitions in coal businesses in Australia, indicating a rising trend in the future.

On the Chinese front, she demand for coal is steadily rising. Eventhough most major cities are switching to cleaner energy from renewable sources, fossil fuels are still needed for China’s real sector. Ms Somrudee said Banpu is also in talks to acquire a coal mine in Indonesia, but gave no details, only saying the deal is expected to be finalised by year-end. She said Banpu is implementing a plan to expand its existing coal mine reserve in Indonesia to 15 years of production, up from 11 years. That increase in reserve could raise the company's total coal production volume to 375 million tonnes. Coal production in Indonesia represents almost half of Banpu's total sales volume each year, she added. The International Energy Agency (IEA) estimates that global energy demand could rise 40% to 18 billion barrels of oil in 2035, up from 13 billion in 2017. But fossil fuels' portion of global energy demand will drop to 60% in 2035 from 70% this year, the IEA said. BANPU shares closed yesterday on the SET at 16 baht, up 30 satang, in trade worth 946 million baht.

(Source: Platts)

INTERNATIONAL SPOT DRY BULK FREIGHT ASSESSMENTS

Unit: USD/ton

Size	From	To	Freight rates	Change
Capesize	Australia	China	5.50	+ 0.00
(150,000 tons)	Queensland	Japan	6.30	+ 0.00
	New South Wales	South Korea	6.55	+ 0.00
Panamax	Richards Bay	India West	10.45	+ 0.10
(70,000 tons)	Kalimantan	India West	7.00	- 0.20
	Richards Bay	India East	10.70	+ 0.10
	Kalimantan	India East	5.95	- 0.20
	Australia	China	9.55	+ 0.10
	Australia	India	10.80	+ 0.15

(Source: Platts Coal Trader International – Date 10/07/2017)