10 FEBRUARY 2022

EQUITY RESEARCH - COMPANY REPORT

FINANSIA
FSS INTERNATIONAL INVESTMENT ADVISORY

BANPU BANPU TB

THAILAND / MATERIALS

BUY

UNCHANGED

TARGET PRICE	THB16.90
CLOSE	THB11.40
UP/DOWNSIDE	+48.2%
PRIOR TP	THB16.90
CHANGE IN TP	UNCHANGED
TP vs CONSENSUS	+16.0%

Upside จากการพึ่งพาถ่านหินของจีน

- เราคาดว่ากำไรสุทธิรายไตรมาสใน 4Q21-2Q22 จะออกมาดีติดต่อกันจากราคาขายเฉลี่ย (ASP) ที่สูงขึ้นและกำไรที่ดีขึ้นจากธุรกิจพลังงาน
- เราคาดว่าราคาถ่านหินจะปรับขึ้นเหนือ USD120/t ในปี 2022-23 จากความต้องการถ่านหินที่ดี การนำเข้าถ่านหินที่อยู่ในระดับสูงของจีน และอุปทานที่ตึงตัวมากยิ่งขึ้น
- คงแนะนำซื้อที่ราคาเป้าหมาย 16.9 บาท (SoTP)

ธุรกิจถ่านหินจะรายงานกำไรที่ดีหลังผลขาดทุนจากสัญญาป้องกันความเสี่ยงลดลง

หลังราคาหุ้นปรับตัวลดลงในช่วงเดือน พ.ย. 21 ถึง ก.พ. 22 เราคิดว่าปัจจุบันราคาหุ้นของ Banpu มีแนวโน้มปรับตัวขึ้นก่อนการประกาศกำไรสุทธิ 4Q21 และปี 2021 ที่น่าจะออกมาดีในอีก 3 อาทิตย์ข้างหน้า เราเห็น 3 ปัจจัยบวกที่น่าจะดีดราคาหุ้นขึ้นสู่ราคาเป้าหมายของเราที่ 16.9 บาท (SoTP) ภายในสิ้นปี 2022 ประกอบด้วย 1) กำไรสุทธิรายไตรมาสในช่วง 4Q21-2Q22 ที่ดีต่อเนื่องจาก ASP ของถ่านหินที่สูงขึ้นและผลขาดทุนจากสัญญาป้องกันความเสี่ยงที่ลดลง; 2) กำไรสุทธิที่ดีถึง 1พัน ลบ. ต่อไตรมาสหลังหักผลขาดทุนจากสัญญาป้องกันความเสี่ยงในธุรกิจก๊าซจากชั้นหินดินดาน; และ 3) กำไรที่เพิ่มขึ้นจากธุรกิจโรงไฟฟ้าจากกำลังการผลิตใหม่ที่เพิ่มขึ้น

กำไรสุทธิรายไตรมาสที่ดีจะเป็นปัจจัยหนุนที่สำคัญที่สุด

เราเชื่อว่าปัจจัยหนุนที่สำคัญที่สุดสำหรับราคาหุ้นของ Banpu ก็คือกระแสกำไรสุทธิรายไตรมาสที่ดี ซึ่งเราคาดว่าจะดีขึ้นเรื่อย ๆ ใน 4 ไตรมาสข้างหน้า โดยเราคาดว่าตัวเลขจะขึ้นจาก 2.5พัน ลบ. ใน 3Q21 เป็น 5.8พัน ลบ. (USD180.9ล้าน) ใน 4Q21, 7.6พัน ลบ. ใน 1Q22, และ 8.2 พัน ลบ. ใน 2Q22 ปัจจัยหนุนการเติบโตของกำไรที่สำคัญจะมาจากกำไรสุทธิที่สูงขึ้นของธุรกิจถ่านหินในอินโดนีเซีย ซึ่งน่าจะรายงานอัตรากำไรขั้นต้นที่สูงขึ้นมากในช่วง 4Q21-2Q22 จาก ASP ที่สูงขึ้น ซึ่งน่าจะมากพอที่จะช่วยชดเชยต้นทุนการดำเนินงานที่สูงขึ้น

ราคาถ่านหินมีแนวโน้มสูงกว่า USD120/t ในปี 2022-23

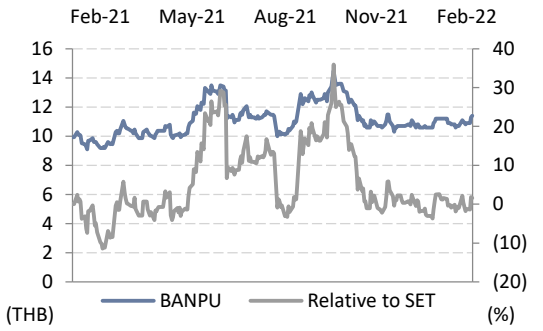
เราคาดว่าดัชนีราคาถ่านหินจะทรงตัวเหนือ USD120/t ในปี 2022-23 จาก 1) ความต้องการถ่านหินที่สูงขึ้นในจีนเพื่อใช้สำหรับการขยายกำลังการผลิตไฟฟ้าจากถ่านหินที่กำลังเกิดขึ้นในช่วงปี 2021-25; 2) นโยบายห้ามนำเข้าถ่านหินจากออสเตรเลียของจีน; 3) ปริมาณนำเข้าถ่านหินที่สูงของจีน; 4) อุปทานที่ตึงตัวมากขึ้นจากอินโดนีเซีย; และ 5) ความต้องการถ่านหินที่มีอยู่มากในฐานะที่เป็นแหล่งพลังงานทดแทนจากราคาก๊าซและน้ำมันที่อยู่ในระดับสูง

ช่องว่างการประเมินมูลค่าจะปิดในปี 2022

เราคงแนะนำซื้อที่ราคาเป้าหมาย 16.9 บาท (SoTP) เราเชื่อว่าราคาของ Banpu จะปรับขึ้นในอีก 12 เดือนข้างหน้าจาก 1) กำไรสุทธิรายไตรมาสที่ดี ซึ่งเราคิดว่าจะสูงกว่าที่ตลาดคาด; 2) ช่องว่างการประเมินมูลค่าที่แคบลงระหว่างราคาหุ้นของ Banpu กับ ITMG ซึ่งเมื่อเร็ว ๆ นี้แตะ IDR22,000 อันเป็นระดับที่ราคาหุ้นของ Banpu อยู่ที่ 14.9 บาทในเดือน ต.ค. 21; และ 3) แนวโน้มกำไรที่ยั่งยืนมากขึ้นจากธุรกิจที่เป็นมิตรต่อสิ่งแวดล้อมมากยิ่งขึ้นประกอบด้วยพลังงานหมุนเวียน ยานยนต์ไฟฟ้าและกิจการที่เกี่ยวข้องกับแบตเตอรี่ รวมถึงก๊าซในชั้นหินดินดานอันเป็นเชื้อเพลิงในช่วงเปลี่ยนผ่าน

KEY STOCK DATA

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	71,332	122,721	107,504	96,271
Net profit	(1,786)	11,090	12,771	9,984
EPS (THB)	(0.35)	2.02	1.78	1.12
vs Consensus (%)	-	(26.1)	(17.3)	(24.7)
EBITDA	9,287	54,686	49,651	43,889
Core net profit	(3,288)	11,090	12,771	9,984
Core EPS (THB)	(0.65)	2.02	1.78	1.12
Chg. In EPS est. (%)	nm	-	-	-
EPS growth (%)	nm	nm	(11.9)	(36.7)
Core P/E (x)	(17.6)	5.7	6.4	10.1
Dividend yield (%)	4.4	11.9	8.0	4.6
EV/EBITDA (x)	23.7	4.2	5.2	6.4
Price/book (x)	0.9	0.8	0.9	0.9
Net debt/Equity (%)	165.3	119.6	103.9	89.7
ROE (%)	(4.9)	15.7	14.7	9.6



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	1.8	2.7	19.7
Relative to country (%)	(0.9)	(1.6)	6.7

Mkt cap (USD m)	2,357
3m avg. daily turnover (USD m)	27.9
Free float (%)	88
Major shareholder	Vongkusolkit Family (13%)
12m high/low (THB)	14.90/9.02
Issued shares (m)	6,766.00

Sources: Bloomberg consensus; FSSIA estimates

Suwat Sinsadok, CFA, FRM, ERP
suwat.sin@fssia.com
+66 2611 3558

Siriluck Pinthusoonthorn
siriluck.pin@fssia.com
+66 2611 3562

PREPARED BY FSS INTERNATIONAL INVESTMENT ADVISORY SECURITIES CO LTD (FSSIA). ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT

บทวิเคราะห์ฉบับนี้แปลมาจากบทวิเคราะห์ของ FSSIA ฉบับวันที่ 10 กุมภาพันธ์ 2022

Investment thesis

We believe Banpu's earnings growth outlook will improve in 2022, driven by its coal, gas, and power businesses due to the improving margin outlooks on the stronger demand and tighter supply.

We think that rising Newcastle index coal prices in the range of USD68-70/tonne should lead to higher coal earnings in 2022. Power earnings should gradually improve with the resumption of full operations at the Hongsa power plant, as well as from its new solar farms in Japan and China and wind farms in Vietnam.

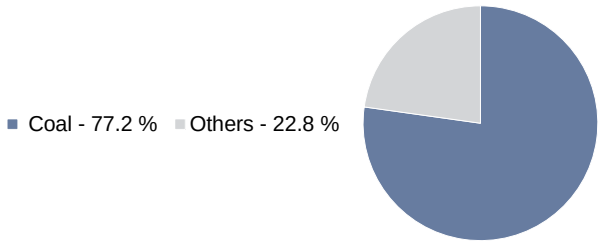
We see three factors that we think will drive up Banpu's earnings in 2022. First, its gas earnings are in an upcycle due to the tighter supply in the US. Second, we expect higher coal earnings on the back of USD100-130/tonne index coal prices. Finally, we see more upsides for its power earnings due to higher projected net profit contributions from Hongsa.

Company profile

BANPU is a leading coal-based energy company in Asia-Pacific with operations in Indonesia and China. It also operates power plants in Thailand and China.

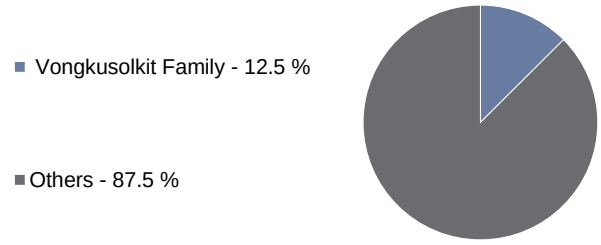
www.banpu.com

Principal activities (revenue, 2020)



Source: Banpu

Major shareholders



Source: Banpu

Catalysts

A higher coal price, rising coal production volumes and reserves, and improving net profit growth from its power business would all be key positive catalysts.

Risks to our call

We see downside risks to our SoTP-based TP from lower coal prices, higher diesel costs and any unplanned shutdowns of its power plants.

Event calendar

Date	Event
Feb 2022	4Q21/2021 results announcement

Key assumptions

	2021E	2022E	2023E
Coal sales volume (mtpa)	33.5	34.0	34.0
Newcastle coal price (USD/t)	130.0	100.0	70.0
ASP for coal (USD/t)	105.8	81.3	65.0
Total cost - Indonesia (USD/t)	58.7	54.6	51.5
Total cost - Australia (USD/t)	72.0	72.0	72.0

Source: FSSIA estimates

Earnings sensitivity

- Ceteris paribus, for every 1% rise in average coal price, we project 2022 EPS to rise by 2.6%, and vice versa.
- Ceteris paribus, for every 1% rise in coal sales volume, we estimate 2022 EPS to rise by 1.2%, and vice versa.
- Stability in crude oil price, rising coal prices and high utilisation rates of power plants are key to earnings growth.

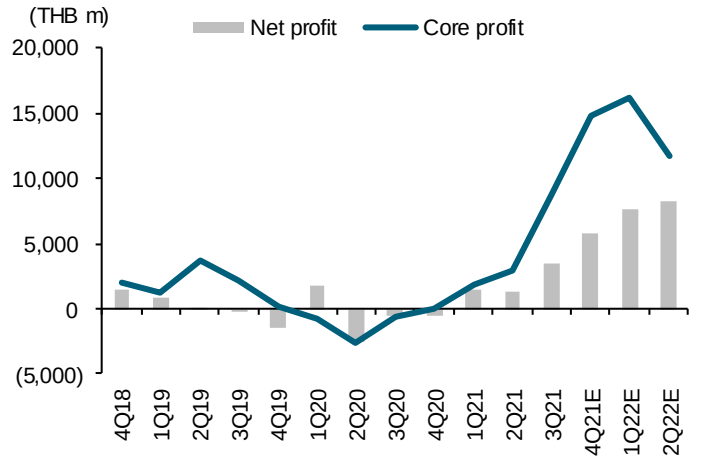
Source: FSSIA estimates

Upside on China's coal dependency

After a period of share price consolidation during Nov-21 to Feb-22, we think Banpu's share price is now poised to rerate ahead of the announcement of potentially strong 4Q21 and 2021 net profit results in the next three weeks.

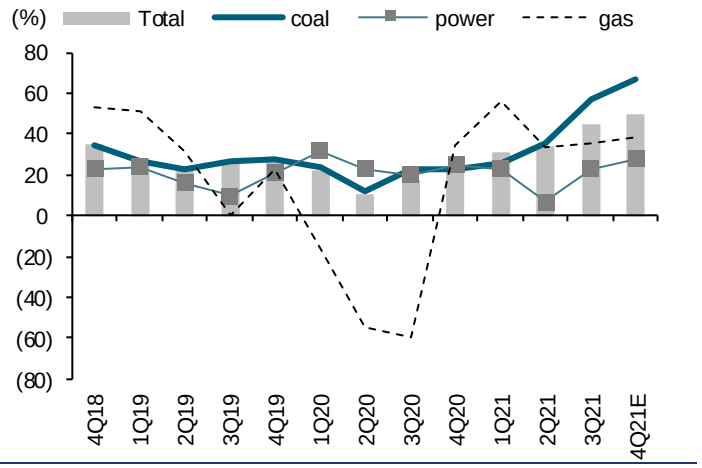
We see three catalysts that should catapult Banpu's share price to our SoTP-based target price of THB16.9 by end-2022, including 1) a series of strong quarterly net profits in 4Q21-2Q22, driven by a higher ASP for coal and lower hedging losses; 2) a solid net profit of THB1b per quarter after netting a hedging loss for the shale gas business; and 3) rising earnings from the power unit, driven by new capacity growth.

Exhibit 1: Quarterly net profit and core net profit



Sources: Banpu; FSSIA estimates

Exhibit 2: Gross margin by business unit



Sources: Banpu; FSSIA estimates

Banpu's strong quarterly net profit momentum remains largely overlooked

We believe the most overlooked factor amid Banpu's lacklustre performance in the past three months is its strong quarterly net profit momentum, which we expect will go from strength to strength in the next four quarters, rising from THB2.5b in 3Q21 to THB5.8b in 4Q21 (USD180.9m), THB7.6b in 1Q22, and THB8.2b in 2Q22.

The major earnings growth drivers would come from higher net profits from the coal business in Indonesia under its 65%-owned subsidiary Indo Tambangraya Megah Tbk PT (ITMG IJ), which should see a much higher gross margin in 4Q21-2Q22 due to a higher ASP that should more than offset a rise in operating costs.

Exhibit 3: Financial analysis of Banpu's 4Q21E net profit by business unit

	Margin gap	After-tax margin gap	Production volume	Net profit	--------- Hedging loss --------		Net profit after hedging
	4Q21E	4Q21E	4Q21E	4Q21E	3Q21	4Q21E	4Q21E
	(USD/t)	(USD/t)	(mt)	(USD m)	(USD m)	(USD m)	(USD m)
ITMG	73.8	48.0	4.8	230	(102)	(99)	85
CEY	30.5	22.9	2.4	55	(28)	(25)	30
China's coal	35.0	28	1.0	28	0	0	28
	(USD/mcf)	(USD/mcf)	(mcf)	(USD m)	(USD m)	(USD m)	(USD m)
Shale gas	2.50	2.2	62.0	136	(61)	(110)	26
Power				11	na	na	11
Total	**141.9**	**101.1**	**70.2**	**460.9**	**(191.0)**	**(234.0)**	**180.9**

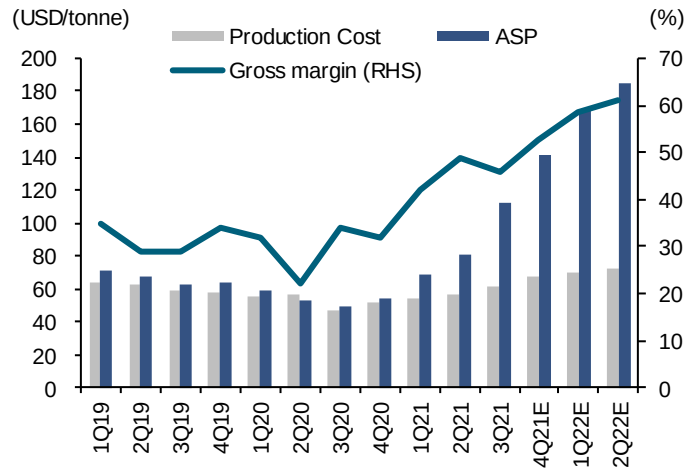
Sources: Banpu; FSSIA estimates

ITMG leading the growth charge in 4Q21. We estimate that the net profit from ITMG will rise to USD85m in 4Q21, even after deducting a hedging loss of USD99m, down from USD102m in 3Q21 due to a narrower gap between the hedging price of USD90-100/t vs the average Newcastle index coal price of USD160/t. The higher projected ASP to USD141/t in 4Q21, up from USD112.7/t in 3Q21, should more than offset the cost increase from USD60/t in 3Q21 to USD67/t estimated in 4Q21, mainly due to higher royalty costs and diesel expenses.

CEY turnaround despite a lower-than-expected production volume and rising cost in 4Q21. We forecast Centennial (CEY) coal mine in Australia to turn profitable in 4Q21, thanks to a sharp drop in the hedging loss from USD28m in 3Q21 to USD25m in 4Q21 and a higher ASP to USD128/t, up from USD102.8/t in 3Q21. This should timely offset the impact of the higher production cost that we estimate at USD98/t in 4Q21, up from USD88/t in 3Q21, due to the geological difficulty of the Springvale mine, leading to a lower-than-expected coal production volume of 2.4mt, far lower than Banpu's guided 3.4mt.

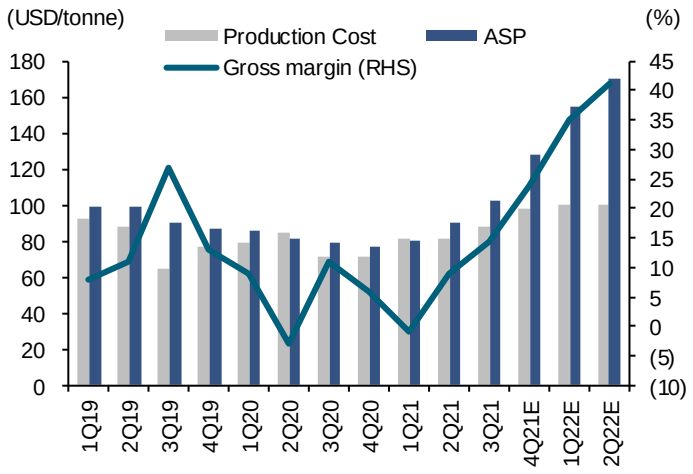
Lower net profit from China coal unit in 4Q21. We project the China coal unit to generate a q-q lower net profit contribution to Banpu at USD28m in 4Q21, down from USD50m in 3Q21 due to the Chinese government's policy to cap the coal price in 4Q21. Meanwhile, the overall cost per unit increased from higher SG&A expenses, according to management.

Exhibit 4: ITMG's coal ASP, production cost, and gross margin



Sources: Banpu; FSSIA estimates

Exhibit 5: CEY's coal ASP, production cost, and gross margin



Sources: Banpu; FSSIA estimates

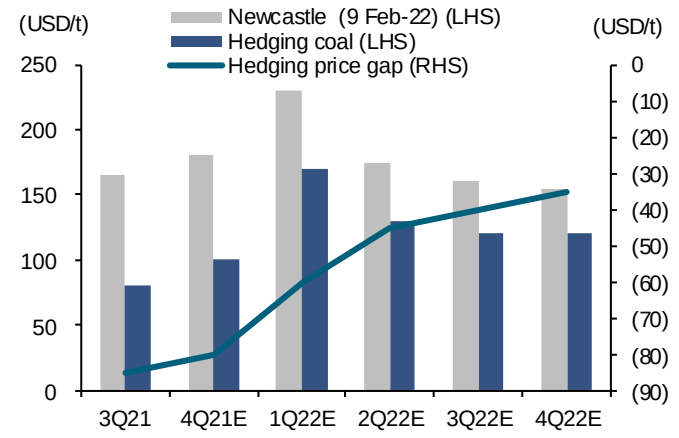
A weaker net profit from shale gas due to a q-q higher hedging loss. We expect shale gas to generate a net profit of USD26m in 4Q21, down from USD34m in 3Q21 as a result of a larger hedging loss from USD61m in 3Q21 to USD110m in 4Q21. The Henry Hub gas price index has moved higher q-q while the hedging gas price at USD3/mcf for Banpu's shale gas volume of 55bcf per quarter has remained stable q-q based on Banpu's cash flow hedging policy at the ASP for gas at USD3.0/mmbtu.

Solid earnings from power unit. We forecast the net profit from power to increase to USD11m in 4Q21, despite the expected net losses from the three coal-fired small power producers and Shan Xi Lu Guang in China due to the higher coal cost and BLCP as a result of the planned shutdown.

According to management, Banpu Power (BPP TB, BUY, TP THB20), a 70%-owned subsidiary of Banpu, should see an improving net profit outlook in 1Q22 thanks to the greenlight to gradually increase the electricity tariff to match the spike in the coal cost, potentially leading to a narrower margin loss for Banpu's four coal-fired power plants.

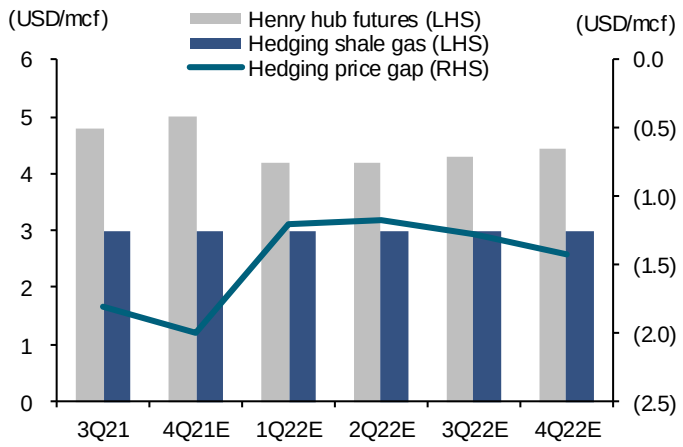
Hedging loss should narrow significantly in 2Q22 onward. In 3Q21, Banpu incurred a total hedging loss of USD177m, mainly from a USD102m loss for coal swap contracts and a USD61m loss for gas swap contracts. However, we forecast Banpu's hedging loss for coal to decline in 1Q22 onward, as Banpu will have a much smaller hedging position of only 150kt in 1Q22 and 60kt for 2Q-4Q22 at a high hedging coal price of USD120-170/t, based on management's guidance.

Exhibit 6: Newcastle coal index price, Banpu's hedging coal price, and estimated hedging price gap



Sources: Banpu; FSSIA estimates

Exhibit 7: Henry Hub gas index price, Banpu's shale gas hedging price, and hedging price gap

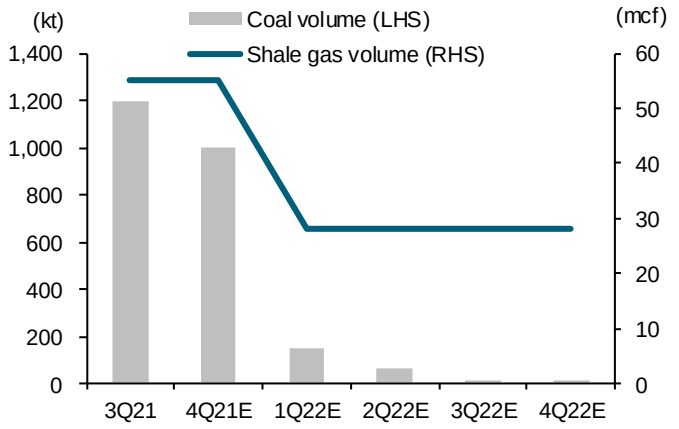


Sources: Banpu; FSSIA estimates

Hedging loss for shale should shrink markedly by 1Q22 and then stabilise in 2022. For shale gas, we expect the hedging loss to similarly decline throughout 2022 given Banpu's policy to hedge only 45% of the total sales volume of 60-65bcf per quarter, down from the 90% hedging volume policy implemented in 2021, which led to a significant hedging loss in 2H21 when the Henry Hub gas price spiked to over USD4/mmbtu, far above Banpu's hedging gas price of USD3/mmbtu.

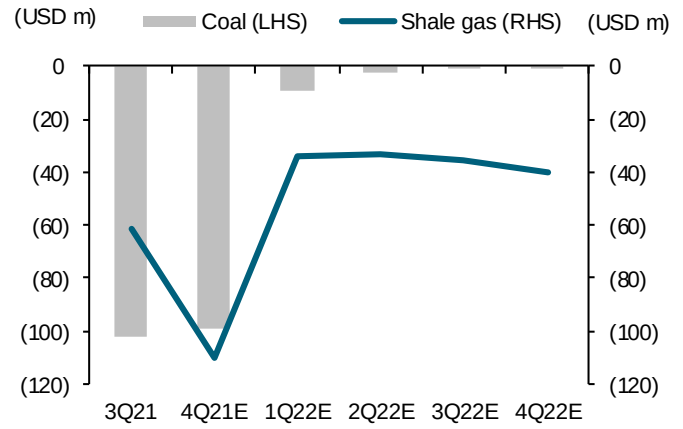
Hence, we project that the hedging loss from shale gas will markedly plunge from USD110m in 4Q21 down to USD33-40m in 2Q-4Q22, based on the much smaller hedging volume of 28bcf a quarter, down from 55bfc a quarter in 2021. Banpu will change its hedging policy for both coal and shale gas to effectively reduce the hedging volumes y-y in view of a much more positive outlook for the prices of coal and shale gas in 2022.

Exhibit 8: Hedging volumes for coal and shale gas units



Sources: Banpu; FSSIA estimates

Exhibit 9: Hedging losses for coal and shale gas units

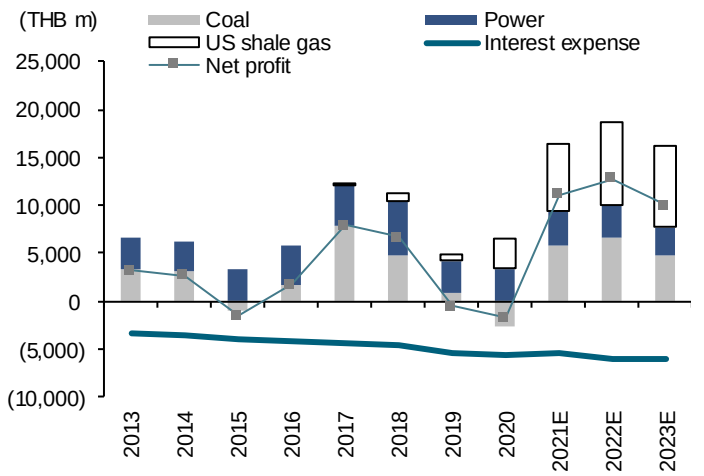


Sources: Banpu; FSSIA estimates

China's coal policy and its influence

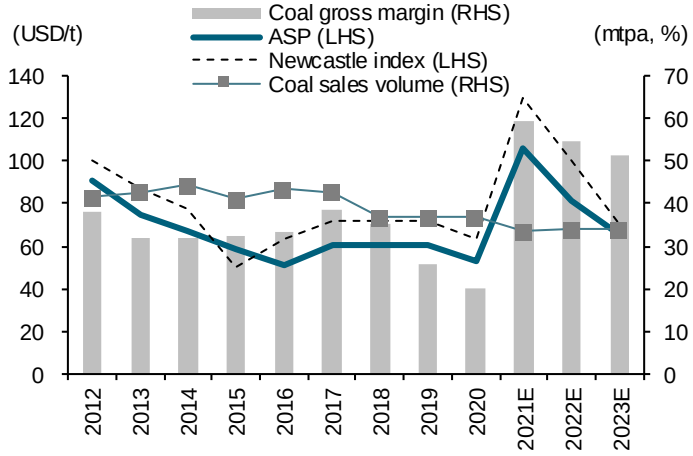
We believe the Newcastle coal index price benchmark (NCT) is likely to stay high for longer in 2022-23, even after the coal price spike hit its USD247/t peak in Oct-21. It has since recovered from its recent bottom at USD139/t in Nov-21 and rebounded to USD243/t in Feb-22. The higher NCT should gradually result in an uptrend for Banpu's coal ASPs for its coal mines in Indonesia, Australia, and China, thereby propelling the EBITDA generated from the coal business to exceed THB5b annually in 2021-23, based on our estimate.

Exhibit 10: Net profit breakdown by business unit



Sources: Banpu; FSSIA estimates

Exhibit 11: Coal ASP, gross margin, and sales volume vs Newcastle coal price index

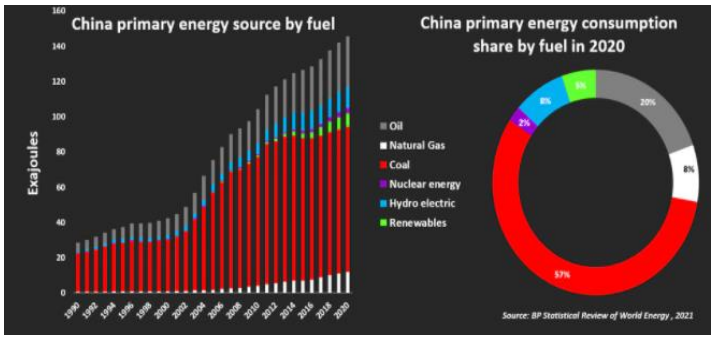


Sources: Banpu; Bloomberg; FSSIA estimates

China's coal policy and its influence on the global coal price trend. After the COP26 summit meeting in Oct-Nov 2021, China has committed to phasing out its coal-fired power plants to meet its net zero emissions target by 2060, indicating that at least in the next 10-20 years, China will remain the world's largest coal consumer with over 2/3 of its power generating capacity being coal-fired power plants.

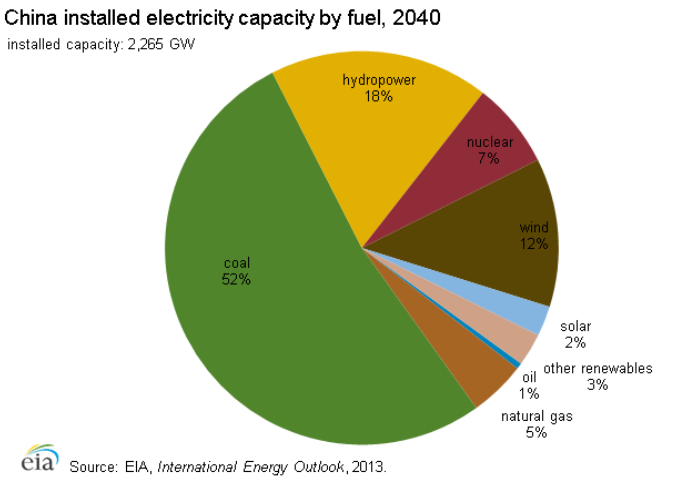
We see three reasons to support a global coal price uptrend in 2022-23, including 1) China's growing coal demand for the ongoing expansion of its coal-fired power capacity from 2021-25; 2) China's policy to ban coal imports from Australia and increase coal imports from other producers; and 3) China's coal imports should remain high in 2022 as its coal production growth, despite being higher due to the government's policy reversal to resolve the power supply shortage, is expected to lag behind the demand growth due to the strong power demand post Covid-19.

Exhibit 12: Coal-fired power remained the largest share of China's primary energy consumption in 2020



Source: Reuters

Exhibit 13: China's installed power capacity target by 2040

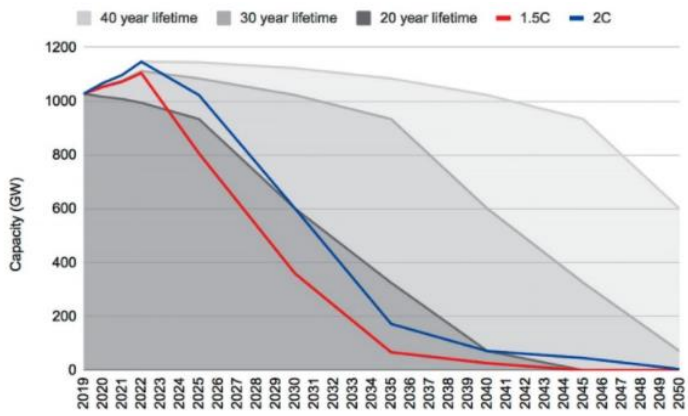


Source: Energy Information Administration (EIA)

Ironically, China's higher coal-fired capacity until 2025 and the significant increase in its renewable capacity was showcased in the recent 2022 Winter Olympics in Beijing. This is a good example of how China might achieve its "carbon neutrality" goal by 2060, in its own way, and how serious the country is to reduce carbon emissions via its energy policy.

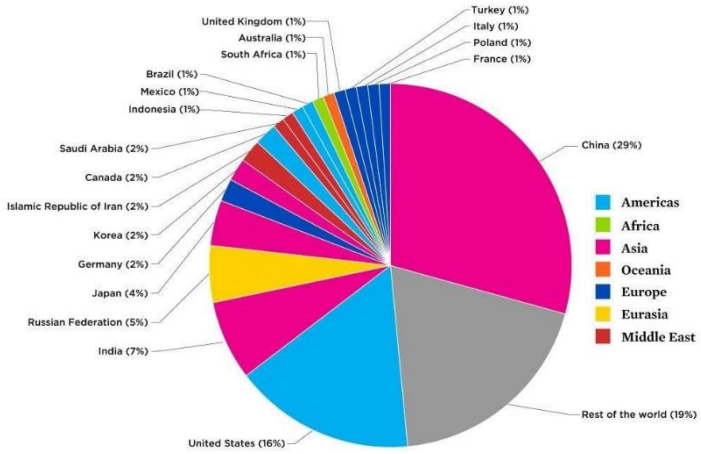
According to the US Energy Information Administration (EIA), China is the world's largest country for CO2 emissions, accounting for 29% of global CO2 emissions in 2019, followed by the US (16%), India (7%), and Russia (5%). While China has committed to reducing carbon emissions gradually and reach carbon neutrality by 2060, we think that at least in the next 10 years it will have no choice but to maintain and construct new coal-fired capacity in order to ensure the country's power security and avoid power shortages like the one that occurred in 2H21.

Exhibit 14: China's projected coal-fired capacity



Source: Mining.com

Exhibit 15: Share of CO2 emissions by country



Source: Oilprice.com

By the end of 2021, the installed capacity of wind and solar power in China was over 600GW, with both technologies crossing the 300MW mark in 2021. Including hydropower, a total 2,480GW terawatt hours (TWh) of renewable electricity was generated in 2021 in China.

Instead of purchasing renewable electricity on paper via "carbon credit" trading, China has employed the Winter Olympics to pioneer a dedicated renewable power grid, using the "cross-regional green power trading" mechanism, which allows large consumers to buy renewable electricity generated anywhere in the country.

The games have been given priority in the trading platform, with venues able to buy renewable electricity at a lower price, according to China's state agency, the National Development and Reform Commission (NDRC).

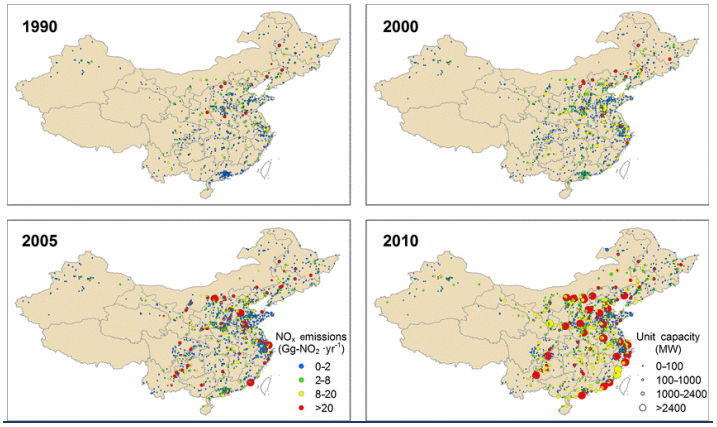
Coal-fired capacity growth remains visible in China until 2025. The ongoing coal consumption by China at over 4bt annually at least in the next 10-20 years, based on our estimate, has been recently substantiated by China's greenlight on 9 Feb-22 to grant a new RMB7b investment to build a coal-fired power plant in Zhejiang province in eastern China.

According to Sky News, the Zhejiang Energy Group, the developer and operator of the new power plant phase 2 of the Liuheng power plant using the more efficient "ultra-supercritical" technology, indicated that the new coal-fired power plant will help balance energy supply and demand in Zhejiang as well as serve the province's low-carbon transition. This is thanks to the lower carbon emission rate at 254 grams of coal per kWh, lower than China's national average of 302.5 grams/kWh, thereby improving the energy efficiency of deploying a coal-fired power plant.

Exhibit 16: A coal-fired power plant in China

Source: andrewspeed.com

Exhibit 17: NO x emissions from China's coal-fired power plants in 1990, 2000, 2005, and 2010



Source: ResearchGate

China, by far the world's largest coal consumer, has come under fire for its plan to peak its coal consumption in 2025 and only then begin to phase down its coal consumption, according to President Xi Jinping in 2021. However, China has already committed to funding new coal-fired power plants overseas.

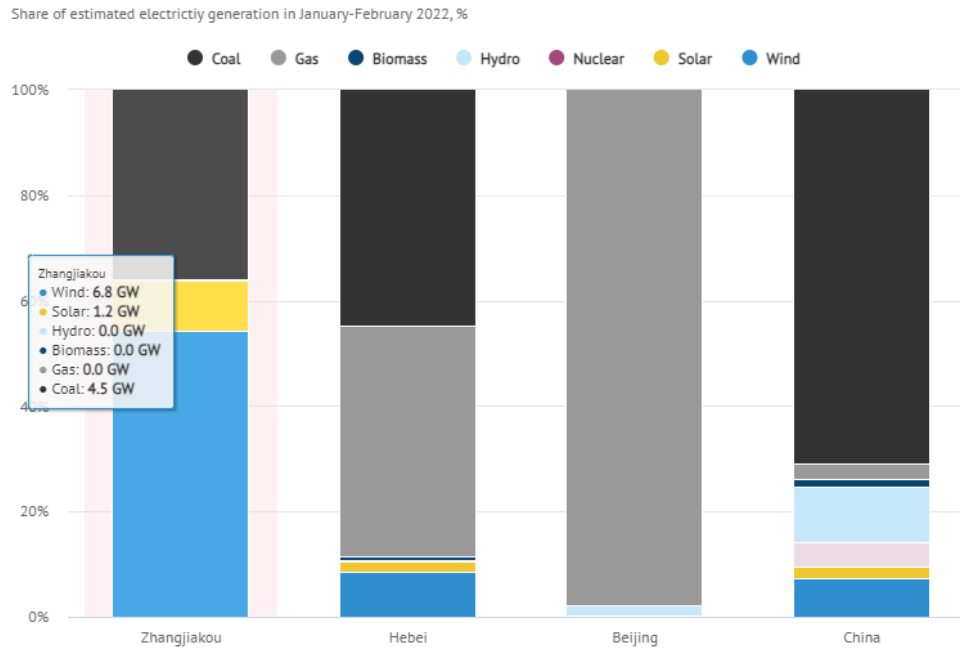
China's insistence on sticking with coal-fired power plants was triggered by the recent power shortage in 2H21 due to the lower-than-expected power generation amount from renewable sources like wind and solar farms and hydropower plants, all being "unreliable" sources of power despite China's high investment in clean energy in the past five years.

According to the EIA, most of China's coal-fired capacity will have to be phased out by 2050 to meet the country's carbon neutrality target, and the EIA projects that up to 150GW of new coal-fired power capacity is planned to be built over the 2021-25, bringing China's total coal-fired capacity to 1,230GW by 2025.

The World's first "green" Olympics in 2022 in China. According to Carbon Brief's article, "Analysis: How China is Powering the Winter Olympics 2022 in Beijing", dated 9 Feb-22, China is branding its Winter Olympics 2022, which was boycotted by a number of Western countries led by the US, in Beijing as the world's first "green" Olympic games, including the first games to run on 100% renewable electricity.

China's leadership to showcase clean energy development and make it a part of the country's international image, which is ironically against its capacity expansion of coal-fired power, is clearly backed by its real development for the Winter Olympics 2022.

Exhibit 18: Zhangjiakou will get more than 60% of its power from wind and solar during the Winter Olympics 2022



Source: CarbonBrief

A "true" green city: Zhangjiakou as a role model for renewable cities in China. The case in place Zhangjiakou, a mountain city in China's Hebei province where the skiing events of the games are being held. The renewable capacity of wind and solar farms alone at Zhangjiakou exceeds that of most countries in the world. The pioneering "Zhangjiakou Green Electric Grid" was built to deliver power from the city to neighbouring Beijing.

The pilot renewable power grid is a scale model of a much larger plan that China is rolling out nationwide, as it aims for its CO2 emissions to peak by 2030 and reach carbon neutrality by 2060.

From the start of the preparations in mid-2019 to the end of the games, the venues will require around 400GWh of electricity, equal to the annual electricity consumption of about 180,000 Chinese households, according to China's officials for the games.

The Winter Olympics have accelerated the construction of the Zhangjiakou renewable energy flexible direct current (DC) grid, an innovative power grid system with a much higher efficiency and lower transmission loss than the current traditional alternative current (AC) grid system. The Beijing 2022 games rely on this newly-built infrastructure in Zhangjiakou city, a USD2b project launched in Jun-20 to distribute wind and solar power.

Zhangjiakou: the wind power capital of China. With an installed capacity of 23.4GW of wind (16.4GW) and solar (7GW) capacity, Zhangjiakou, if perceived as a country, would be the world's 12th largest country in terms of renewable capacity, behind Brazil but ahead of Vietnam.

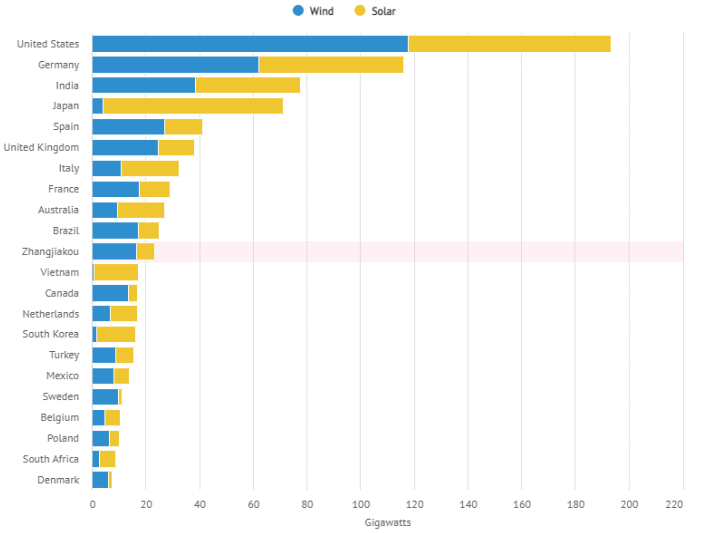
The city's installed coal-fired power capacity at 5.9GW is dwarfed by the renewables installations. We estimate that more than 60% of electricity generated in the city in Jan-Feb 2022 will be derived from wind and solar power. Output from wind and solar would also exceed Zhangjiakou's total consumption during the period.

This 60% share for wind and solar stands out particularly strongly from the rest of Hebei province and from Beijing, where fossil fuels generate 90% of all electricity at this time of the year. The average for the whole country is approximately 75%.

Exhibit 19: A wind farm in Hailiutu township in the county of Zhangbei in Zhangjiakou, Hebei Province, China

Source: CarbonBrief

Exhibit 20: Olympic city Zhangjiakou has more wind and solar capacity than most countries



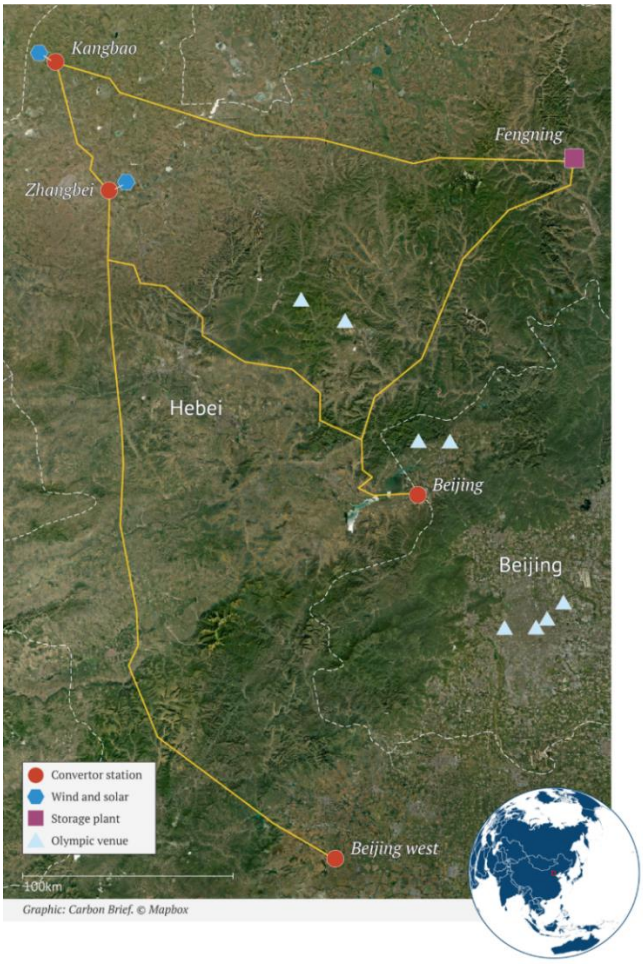
Source: CarbonBrief

To accommodate the higher use of renewable energy, China has launched the "flexible green electricity grid" in Zhangjiakou, which is a one-of-its-kind to use DC technology which is far better suited for very long-distance transmissions than alternating current.

Besides wind and solar generation capacity, the DC grid is connected to the Fengning pumped storage plant, which can store renewable electricity to be dispatched later. The power generation from wind and solar in Zhangjiakou will also feed a direct long-distance transmission line built to power the new city of Xiong'an, China's city of the future, being built outside of Beijing, according to the NDRC.

A long-standing challenge with China's long-distance transmission lines has been their inflexible operation, which has meant that much of the power dispatched through the lines has been generated from coal. The Zhangjiakou project is about pioneering a new institutional setup that is required for the power grid to absorb high shares of intermittent generation, at least as much as new hardware.

Exhibit 21: Flexible DC grid – one-of-its-kind technology for very long-distance transmission



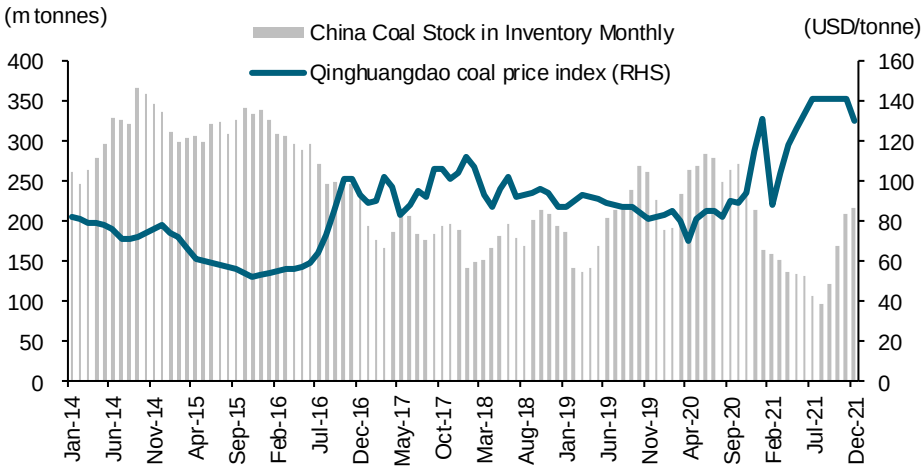
Source: CarbonBrief

Exhibit 22: A photovoltaic power plant on the northern mountain of Caozhuangzi Village in the Xuanhua district of Zhangjiakou, Hebei Province, China

Source: CarbonBrief

But coal remains China's key strategic energy source for the next 10 years. However, the measures that coal-fired power plants report taking to ensure stable power supply during the Olympics highlight that China's power grid is still highly reliant on coal. State-owned power generation groups ordered their plants in the Beijing-Tianjin-Hebei area to stockpile enough coal – more than 30 days – and carry out their maintenance before the end of 2021, so that they are all available to generate during the games.

Exhibit 23: China's coal inventory vs QHD coal price index

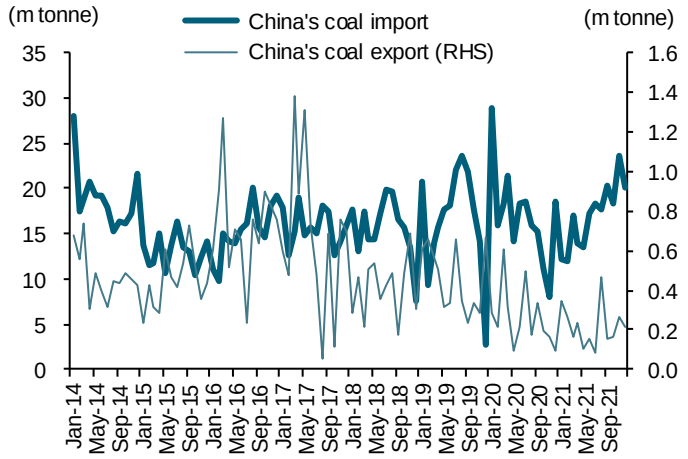


Source: Bloomberg

Coal deliveries are being given priority in rail and road freight. The government's requirement to increase coal stockpiles in the provinces that have an important role in power supply for the Olympics has triggered a recent coal price increase.

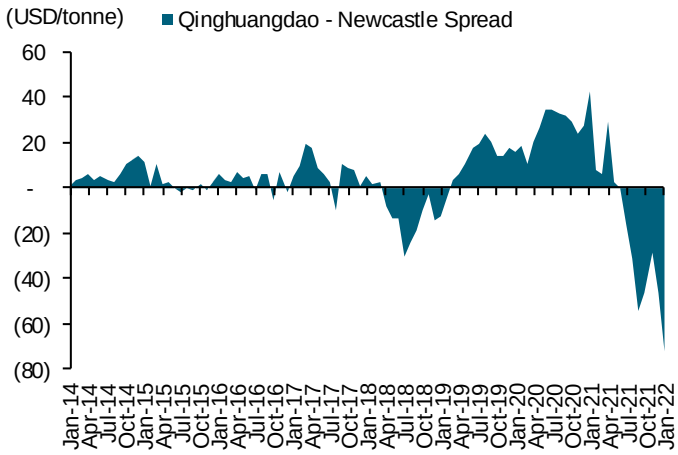
As if to highlight the continued reliance on coal-fired power, a new 2,000-megawatt coal-fired power plant was approved in the relatively wealthy coastal province of Zhejiang during the first week of the games. Meanwhile, Zhangjiakou is aiming to more than double its wind and solar capacity from current levels, to reach a combined 50GW by 2030.

Exhibit 24: China's coal imports and exports



Source: Bloomberg

Exhibit 25: Coal price gap between QHD and NCT



Source: Bloomberg

On an even larger scale, China's central planner the NDRC has recently announced the first batch of projects and plans for China's "clean energy bases" in the west around the Gobi Desert, with a capacity of 100GW, and is reportedly finalising the second batch, with 400GW of capacity to be installed by 2030. The bases will be a vast regional network of wind and solar power installations designed to transmit power to the demand centres in the east.

At the same time, fossil-fuelled power generation continued to grow in 2021 and CO2 emissions from the sector are only due to peak late this decade. Investments in new coal-fired and gas-fired power plants continue, increasing 19% y-y in the first 11 months of 2021, according to the NDRC.

This might appear paradoxical, as renewable energy has a clear cost advantage against new coal power, especially after the increases in tariffs paid to coal power plants late last year. In response to the coal shortage and power crisis, the government allowed tariffs paid to coal plants to rise up to 20% above the province-specific benchmark prices.

Pioneering regional grids with a high share of renewable energy – and especially a grid that powers the top decision-makers' own offices in Beijing – has broader national significance in this context.

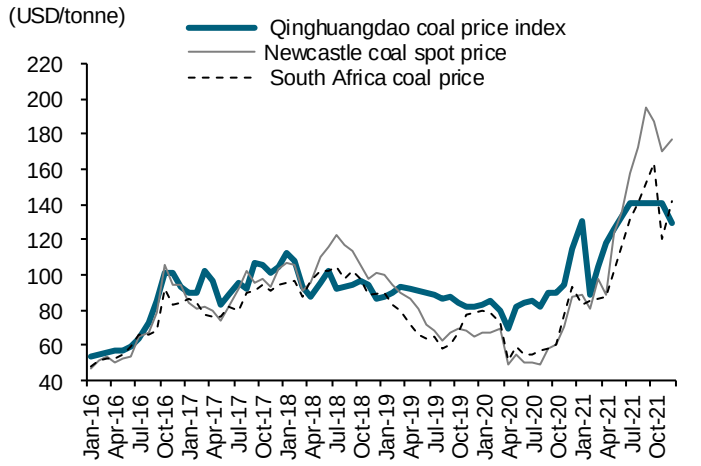
Unloved coal remains a key growth driver for Banpu in 2022-23

Indonesia, now China's most important source of coal imports after its ban on the coal imported from Australia since 2021, lifted its coal export price for Feb-22 to USD188/t overnight, up 20% m-m. The price hike came as "most European countries turn to coal for their power plants after the price of natural gas, both from pipeline and LNG imports, have skyrocketed due to the supply disruptions", according to the Indonesian Energy Ministry.

As a result, coal futures in China rose 9% overnight, reaching their highest level since the government ordered the increased production of coal in 4Q21 to alleviate the coal shortage that led to the power shortfall in Sep-Oct 2021.

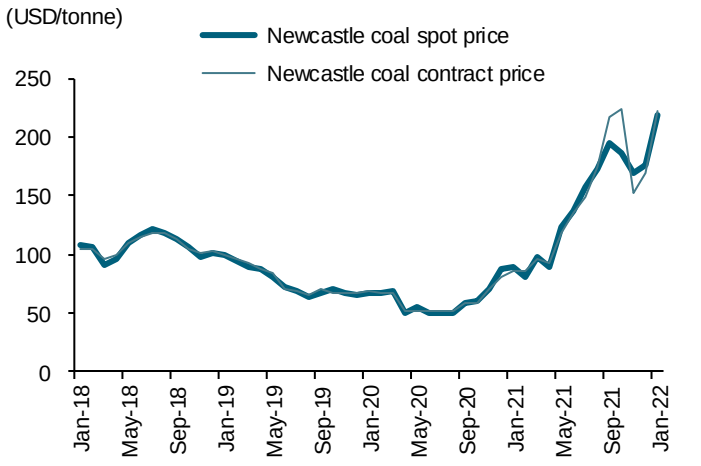
The NCT price jumped by 6% during 7-8 Feb-22, and the NCT price rally came on the back of Electricite de France (OTCPK: ECIFF) reducing its nuclear power production forecasts for the second time in 2022, leading the French government to raise its coal consumption by 50% in this winter period.

Exhibit 26: Benchmark coal prices (QHD vs NCT)



Source: Bloomberg

Exhibit 27: Newcastle coal spot and contract price



Source: Bloomberg

With a tighter supply from Indonesia, the coal import ban on Australia by China, and the strong demand from China and other countries to ensure their power security amid the price spikes of gas, LNG, and oil – the "cleaner" energy substitute sources for "dirty" coal – we think the coal price will remain high at above USD120/t in 2022-23.

Share price should catch up to Banpu's and ITMG's fundamentals

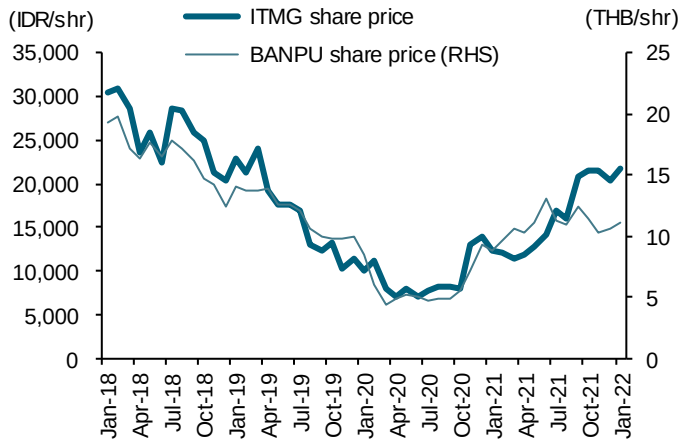
Given the strong net profit growth momentum that we project in 4Q21-2022, we believe Banpu's share price will rerate to our SoTP-based target price of THB16.9 in the next 12 months, based on:

1) Strong quarterly net profits that we think will beat the market's expectations;

2) The valuation gap narrowing between the share prices of Banpu and ITMG, which recently reached IDR22,000 – the level that Banpu's share price hit (THB14.9) back in Oct-21;

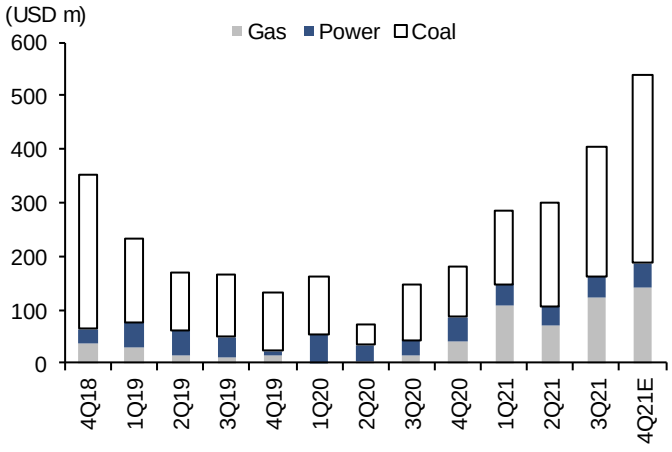
3) The greener and more sustainable earnings outlook from its green businesses, including renewables, EV and battery-related ventures, and the transitional fuel of shale gas that could be the next potential growth engine for Banpu thanks to the high price of shale gas driven by the globally strong demand for LNG and the strong demand in the domestic market in the US following the economic recovery from the Covid-19 pandemic.

Exhibit 28: ITMG's share price vs Banpu's share price



Source: Bloomberg

Exhibit 29: EBITDA breakdown



Sources: Banpu; FSSIA estimates

Exhibit 30: SoTP-based target price

Banpu's valuation breakdown	(THB/share)	
ITMG (65%) (A)	10.4	DCF 9% WACC, terminal growth is zero for mines
China coal	2.2	DCF 9% WACC, terminal growth is zero for mines
Australian coal (Centennial)	10.0	DCF 9% WACC, terminal growth is zero for mines
Net value of non-ITMG coal (B)	22.6	
Value of power business		
BLCP	0.2	DCF 7.1% WACC, terminal growth is zero at the end of PPA
China power	2.5	DCF 7.1% WACC, terminal growth is zero at the end of PPA
Hongsa	4.3	DCF 7.1% WACC, terminal growth is zero at the end of PPA
SLG	1.2	DCF 7.1% WACC, terminal growth is zero at the end of PPA
NIGGC	1.2	DCF 4% WACC, terminal growth is zero at the end of PPA
Solar farms (Japan, Thailand, China)	1.0	DCF 7.1% WACC, terminal growth is zero at the end of PPA
Net value of power (C)	10.5	
Net value of shale gas (D)	3.0	DCF 7.1% WACC, terminal growth is zero at the end of PPA
Banpu's net debt	(19.2)	at end FY22E
Net value of Banpu (A+B+C+D)	**16.9**	**Target price**

Sources: Banpu; FSSIA estimates

Financial Statements

Banpu

Profit and Loss (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Revenue	85,718	71,332	122,721	107,504	96,271
Cost of goods sold	(63,952)	(50,626)	(44,107)	(36,948)	(33,706)
Gross profit	**21,766**	**20,706**	**78,615**	**70,555**	**62,565**
Other operating income	-	-	-	-	-
Operating costs	(13,810)	(11,419)	(23,929)	(20,904)	(18,676)
Operating EBITDA	**7,955**	**9,287**	**54,686**	**49,651**	**43,889**
Depreciation	(10,761)	(13,543)	(17,315)	(22,076)	(22,076)
Goodwill amortisation	(195)	(31)	(366)	(366)	(366)
Operating EBIT	**(3,000)**	**(4,287)**	**37,005**	**27,209**	**21,447**
Net financing costs	(8,393)	(2,778)	(5,992)	(5,984)	(6,006)
Associates	6,444	4,239	6,394	6,295	5,109
Recurring non-operating income	11,416	5,264	(4,315)	2,295	1,109
Non-recurring items	3,697	1,502	0	0	0
Profit before tax	**3,720**	**(300)**	**26,697**	**23,521**	**16,550**
Tax	(2,368)	(269)	(5,685)	(4,823)	(3,203)
Profit after tax	**1,352**	**(569)**	**21,012**	**18,698**	**13,347**
Minority interests	(1,905)	(1,217)	(9,923)	(5,926)	(3,363)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	**(553)**	**(1,786)**	**11,090**	**12,771**	**9,984**
Non-recurring items & goodwill (net)	**(3,697)**	**(1,502)**	**0**	**0**	**0**
Recurring net profit	**(4,249)**	**(3,288)**	**11,090**	**12,771**	**9,984**
Per share (THB)					
Recurring EPS *	(0.82)	(0.65)	2.02	1.78	1.12
Reported EPS	(0.11)	(0.35)	2.02	1.78	1.12
DPS	0.60	0.50	1.36	0.92	0.52
Diluted shares (used to calculate per share data)	5,162	5,075	5,497	7,189	8,881
Growth					
Revenue (%)	(24.0)	(16.8)	72.0	(12.4)	(10.4)
Operating EBITDA (%)	(71.0)	16.7	488.9	(9.2)	(11.6)
Operating EBIT (%)	nm	nm	nm	(26.5)	(21.2)
Recurring EPS (%)	nm	nm	nm	(11.9)	(36.7)
Reported EPS (%)	nm	nm	nm	(11.9)	(36.7)
Operating performance					
Gross margin inc. depreciation (%)	12.8	10.0	50.0	45.1	42.1
Gross margin of key business (%)	25.6	20.1	59.5	54.6	51.5
Operating EBITDA margin (%)	9.3	13.0	44.6	46.2	45.6
Operating EBIT margin (%)	(3.5)	(6.0)	30.2	25.3	22.3
Net margin (%)	(5.0)	(4.6)	9.0	11.9	10.4
Effective tax rate (%)	20.0	20.0	28.0	28.0	28.0
Dividend payout on recurring profit (%)	(72.9)	(77.2)	67.4	51.6	46.4
Interest cover (X)	1.0	0.4	5.5	5.0	3.8
Inventory days	24.6	24.5	28.9	35.9	34.2
Debtor days	43.1	38.1	32.7	45.9	45.2
Creditor days	15.9	13.8	23.6	34.2	33.2
Operating ROIC (%)	(1.6)	(10.6)	29.6	18.6	14.2
ROIC (%)	1.4	0.8	10.3	8.6	6.2
ROE (%)	(5.5)	(4.9)	15.7	14.7	9.6
ROA (%)	0.3	1.2	9.0	7.8	5.6

* Pre-exceptional, pre-goodwill and fully diluted

Revenue by Division (THB m)	2019	2020	2021E	2022E	2023E
Coal	30,346	55,080	56,801	55,080	53,359
Others	55,372	16,252	65,920	52,424	42,912

Sources: Banpu; FSSIA estimates

Financial Statements

Banpu

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Recurring net profit	(4,249)	(3,288)	11,090	12,771	9,984
Depreciation	10,761	13,543	17,315	22,076	22,076
Associates & minorities	(6,444)	(4,239)	(6,394)	(6,295)	(5,109)
Other non-cash items	(544)	1,302	4,517	4,508	4,530
Change in working capital	5,207	1,403	(6,218)	2,040	1,325
Cash flow from operations	**4,730**	**8,722**	**20,310**	**35,100**	**32,806**
Capex - maintenance	-	-	-	-	-
Capex - new investment	(11,578)	(22,372)	(38,490)	(33,717)	(30,194)
Net acquisitions & disposals	(3,133)	2,828	2,828	2,828	2,828
Other investments (net)	3,894	(2,160)	(2,160)	(2,160)	(2,160)
Cash flow from investing	**(10,817)**	**(21,704)**	**(37,822)**	**(33,049)**	**(29,526)**
Dividends paid	(3,097)	(2,864)	(4,595)	(7,105)	(5,773)
Equity finance	0	0	0	0	0
Debt finance	8,531	28,455	6,700	(1,200)	2,500
Other financing cash flows	(2,923)	(7,056)	4,008	(133)	1,493
Cash flow from financing	**2,511**	**18,536**	**6,113**	**(8,438)**	**(1,780)**
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	**0**	**0**	**0**	**0**	**0**
Movement in cash	**(3,576)**	**5,553**	**(11,399)**	**(6,387)**	**1,500**
Free cash flow to firm (FCFF)	(261.79)	(7,363.73)	(11,317.23)	8,389.99	9,643.06
Free cash flow to equity (FCFE)	(479.32)	8,416.72	(6,804.29)	718.09	7,272.49
Per share (THB)					
FCFF per share	(0.04)	(1.09)	(1.67)	1.24	1.43
FCFE per share	(0.07)	1.24	(1.01)	0.11	1.07
Recurring cash flow per share	(0.09)	1.44	4.83	4.60	3.54

Balance Sheet (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Tangible fixed assets (gross)	93,339	112,066	150,556	184,273	214,467
Less: Accumulated depreciation	(34,543)	(34,543)	(51,858)	(73,935)	(100,224)
Tangible fixed assets (net)	**58,796**	**77,523**	**98,697**	**110,338**	**114,242**
Intangible fixed assets (net)	**460**	**94**	**94**	**94**	**94**
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	49,104	50,761	52,486	54,111	54,551
Cash & equivalents	16,388	21,941	10,541	4,155	5,655
A/C receivable	7,415	7,482	14,481	12,578	11,264
Inventories	3,759	3,045	3,927	3,333	2,984
Other current assets	13,533	14,833	14,833	14,833	14,833
Current assets	**41,095**	**47,301**	**43,782**	**34,898**	**34,736**
Other assets	108,134	105,969	96,321	111,737	131,382
Total assets	**257,589**	**281,648**	**291,380**	**311,179**	**335,006**
Common equity	72,195	62,344	78,988	94,804	113,393
Minorities etc.	18,286	22,211	32,134	38,060	41,423
Total shareholders' equity	**90,481**	**84,555**	**111,122**	**132,864**	**154,816**
Long term debt	103,749	112,559	123,415	122,140	124,563
Other long-term liabilities	16,285	18,129	17,915	17,704	17,494
Long-term liabilities	**120,034**	**130,687**	**141,330**	**139,844**	**142,057**
A/C payable	1,798	2,025	3,688	3,231	2,893
Short term debt	29,964	49,140	20,000	20,000	20,000
Other current liabilities	15,312	15,240	15,240	15,240	15,240
Current liabilities	**47,074**	**66,405**	**38,928**	**38,470**	**38,133**
Total liabilities and shareholders' equity	**257,589**	**281,648**	**291,380**	**311,179**	**335,006**
Net working capital	7,597	8,096	14,313	12,273	10,948
Invested capital	224,090	242,442	261,911	288,553	311,218
* Includes convertibles and preferred stock which is being treated as debt					
Per share (THB)					
Book value per share	13.99	12.29	14.37	13.19	12.77
Tangible book value per share	13.90	12.27	14.35	13.17	12.76
Financial strength					
Net debt/equity (%)	129.7	165.3	119.6	103.9	89.7
Net debt/total assets (%)	45.5	49.6	45.6	44.3	41.5
Current ratio (x)	0.9	0.7	1.1	0.9	0.9
CF interest cover (x)	2.3	12.1	6.3	6.8	7.2

Valuation	2019	2020	2021E	2022E	2023E
Recurring P/E (x) *	**(13.8)**	**(17.6)**	**5.7**	**6.4**	**10.1**
Recurring P/E @ target price (x) *	**(20.5)**	**(26.1)**	**8.4**	**9.5**	**15.0**
Reported P/E (x)	(106.4)	(32.4)	5.7	6.4	10.1
Dividend yield (%)	5.3	4.4	11.9	8.0	4.6
Price/book (x)	0.8	0.9	0.8	0.9	0.9
Price/tangible book (x)	0.8	0.9	0.8	0.9	0.9
EV/EBITDA (x) **	24.4	23.7	4.2	5.2	6.4
EV/EBITDA @ target price (x) **	28.0	26.7	4.7	6.0	7.5
EV/invested capital (x)	0.9	0.9	0.9	0.9	0.9

* Pre-exceptional, pre-goodwill and fully diluted ** EBITDA includes associate income and recurring non-operating income

Sources: Banpu; FSSIA estimates

Corporate Governance report of Thai listed companies 2020

EXCELLENT LEVEL										
AAV	ADVANC	AF	AIRA	AKP	AKR	ALT	AMA	AMATA	AMATAV	ANAN
AOT	AP	ARIP	ARROW	ASP	BAFS	BANPU	BAY	BCP	BCPG	BDMS
BEC	BEM	BGRIM	BIZ	BKI	BLA	BOL	BPP	BRR	BTS	BWG
CENTEL	CFRESH	CHEWA	CHO	CIMBT	CK	CKP	CM	CNT	COL	COMAN
COTTO	CPALL	CPF	CPI	CPN	CSS	DELTA	DEMCO	DRT	DTAC	DTC
DV8	EA	EASTW	ECF	ECL	EGCO	EPG	ETE	FNS	FPI	FPT
FSMART	GBX	GC	GCAP	GEL	GFPT	GGC	GPSC	GRAMMY	GUNKUL	HANA
HARN	HMPRO	ICC	ICHI	III	ILINK	INTUCH	IRPC	IVL	JKN	JSP
JWD	K	KBANK	KCE	KKP	KSL	KTB	KTC	LANNA	LH	LHFG
LIT	LPN	MAKRO	MALEE	MBK	MBKET	MC	MCOT	METCO	MFEC	MINT
MONO	MOONG	MSC	MTC	NCH	NCL	NEP	NKI	NOBLE	NSI	NVD
NYT	OISHI	ORI	OTO	PAP	PCSGH	PDJ	PG	PHOL	PLANB	PLANET
PLAT	PORT	PPS	PR9	PREB	PRG	PRM	PSH	PSL	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QTC	RATCH	RS	S	S & J	SAAM
SABINA	SAMART	SAMTEL	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SDC
SEAFCO	SEAOIL	SE-ED	SELIC	SENA	SIRI	SIS	SITHAI	SMK	SMPC	SNC
SONIC	SORKON	SPALI	SPI	SPRC	SPVI	SSSC	SST	STA	SUSCO	SUTHA
SVI	SYMC	SYNTEC	TACC	TASCO	TCAP	TFMAMA	THANA	THANI	THCOM	THG
THIP	THRE	THREL	TIP	TIPCO	TISCO	TK	TKT	TTB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	TSC	TSR	TSTE	TSTH	TTA
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		

VERY GOOD LEVEL										
2S	ABM	ACE	ACG	ADB	AEC	AEONTS	AGE	AH	AHC	AIT
ALLA	AMANAH	AMARIN	APCO	APCS	APURE	AQUA	ASAP	ASEFA	ASIA	ASIAN
ASIMAR	ASK	ASN	ATP30	AUCT	AWC	AYUD	B	BA	BAM	BBL
BFIT	BGC	BJC	BJCHI	BROOK	BTW	CBG	CEN	CGH	CHARAN	CHAYO
CHG	CHOTI	CHOW	CI	CIG	CMC	COLOR	COM7	CPL	CRC	CRD
CSC	CSP	CWT	DCC	DCON	DDD	DOD	DOHOME	EASON	EE	ERW
ESTAR	FE	FLOYD	FN	FORTH	FSS	FTE	FVC	GENCO	GJS	GL
GLAND	GLOBAL	GLOCON	GPI	GULF	GYT	HPT	HTC	ICN	IFS	ILM
IMH	INET	INSURE	IRC	IRCP	IT	ITD	ITEL	J	JAS	JCK
JCKH	JMART	JMT	KBS	KCAR	KGI	KIAT	KOOL	KTIS	KWC	KWM
L&E	LALIN	LDC	LHK	LOXLEY	LPH	LRH	LST	M	MACO	MAJOR
MBAX	MEGA	META	MFC	MGT	MILL	MITSIB	MK	MODERN	MTI	MVP
NETBAY	NEX	NINE	NTV	NWR	OCC	OGC	OSP	PATO	PB	PDG
PDI	PICO	PIMO	PJW	PL	PM	PPP	PRIN	PRINC	PSTC	PT
QLT	RCL	RICHY	RML	RPC	RWI	S11	SALEE	SAMCO	SANKO	SAPPE
SAWAD	SCI	SCP	SE	SEG	SFP	SGF	SHR	SIAM	SINGER	SKE
SKR	SKY	SMIT	SMT	SNP	SPA	SPC	SPCG	SR	SRICHA	SSC
SSF	STANLY	STI	STPI	SUC	SUN	SYNEX	T	TAE	TAKUNI	TBSP
TCC	TCMC	TEAM	TEAMG	TFG	TIGER	TITLE	TKN	TKS	TM	TMC
TMD	TMI	TMT	TNITY	TNP	TNR	TOG	TPA	TPAC	TPCORP	TPOLY
TPS	TRITN	TRT	TRU	TSE	TVT	TWP	UEC	UMI	UOBKH	UP
UPF	UPOIC	UT	UTP	UWC	VL	VNT	VPO	WIIK	WP	XO
YUASA	ZEN	ZIGA	ZMICO							

GOOD LEVEL										
7UP	A	ABICO	AJ	ALL	ALUCON	AMC	APP	ARIN	AS	AU
B52	BC	BCH	BEAUTY	BGT	BH	BIG	BKD	BLAND	BM	BR
BROCK	BSBM	BSM	BTNC	CAZ	CCP	CGD	CITY	CMAN	CMO	CMR
CPT	CPW	CRANE	CSR	D	EKH	EP	ESSO	FMT	GIFT	GREEN
GSC	GTB	HTECH	HUMAN	IHL	INOX	INSET	IP	JTS	JUBILE	KASET
KCM	KKC	KUMWEL	KUN	KWG	KYE	LEE	MATCH	MATI	M-CHAI	MCS
MDX	MJD	MM	MORE	NC	NDR	NER	NFC	NNCL	NPK	NUSA
OCEAN	PAF	PF	PK	PLE	PMTA	POST	PPM	PRAKIT	PRECHA	PRIME
PROUD	PTL	RBF	RCI	RJH	ROJNA	RP	RPH	RSP	SF	SFLEX
SGP	SISB	SKN	SLP	SMART	SOLAR	SPG	SQ	SSP	STARK	STC
SUPER	SVOA	TC	TCCC	THMUI	TIW	TNH	TOPP	TPCH	TPIPP	TPLAS
TTI	TYCN	UKEM	UMS	VCOM	VRANDA	WIN	WORK	WPH		

Description	Score Range
Excellent	90-100
Very Good	80-89
Good	70-79

Disclaimer:
The disclosure of the survey results of the Thai Institute of Directors Association ('IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.
The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey results may be changed after that date. FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such survey results.
* CGR scoring should be considered with news regarding wrong doing of the company or director or executive of the company such unfair practice on securities trading, fraud, and corruption SEC imposed a civil sanction against insider trading of director and executive; ** delisted

Source: Thai Institute of Directors Association (IOD); FSSIA's compilation

Anti-corruption Progress Indicator 2020

CERTIFIED										
2S	ADVANC	AI	AIE	AIRA	AKP	AMA	AMANAH	AP	AQUA	ARROW
ASK	ASP	AYUD	B	BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG
BGC	BGRIM	BJCHI	BKI	BLA	BPP	BROOK	BRR	BSBM	BTS	BWG
CEN	CENTEL	CFRESH	CGH	CHEWA	CHOTI	CHOW	CIG	CIMBT	CM	CMC
COL	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DELTA	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FPI	FPT	FSS
FTE	GBX	GC	GCAP	GEL	GFPT	GGC	GJS	GPSC	GSTEEL	GUNKUL
HANA	HARN	HMPRO	HTC	ICC	ICHI	IFS	INET	INSURE	INTUCH	IRPC
ITEL	IVL	K	KASET	KBANK	KBS	KCAR	KCE	KGI	KKP	KSL
KTB	KTC	KWC	L&E	LANNA	LHFG	LHK	LPN	LRH	M	MAKRO
MALEE	MBAX	MBK	MBKET	MC	MCOT	MFC	MFEC	MINT	MONO	MOONG
MPG	MSC	MTC	MTI	NBC	NEP	NINE	NKI	NMG	NNCL	NSI
NWR	OCC	OCEAN	OGC	ORI	PAP	PATO	PB	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPPM
PPS	PREB	PRG	PRINC	PRM	PSH	PSL	PSTC	PT	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QLT	QTC	RATCH	RML	RWI	S & J
SABINA	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SEAOIL	SE-ED	SELIC
SENA	SGP	SIRI	SITHAI	SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK
SPC	SPI	SPRC	SRICHA	SSF	SSSC	SST	STA	SUSCO	SVI	SYNTEC
TAE	TAKUNI	TASCO	TBSP	TCAP	TCMC	TFG	TFI	TFMAMA	THANI	THCOM
THIP	THRE	THREL	TIP	TIPCO	TISCO	TKT	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	WIIK	XO
ZEN	TRUE									
DECLARED										
7UP	ABICO	AF	ALT	AMARIN	AMATA	AMATAV	ANAN	APURE	B52	BKD
BM	BROCK	BUI	CHO	CI	COTTO	DDD	EA	EFORL	EP	ERW
ESTAR	ETE	EVER	FSMART	GPI	ILINK	IRC	J	JKN	JMART	JMT
JSP	JTS	KWG	LDC	MAJOR	META	NCL	NOBLE	NOK	PK	PLE
ROJNA	SAAM	SAPPE	SCI	SE	SHANG	SINGER	SKR	SPALI	SSP	STANLY
SUPER	SYNEX	THAI	TKS	TOPP	TRITN	TTA	UPF	UV	WIN	ZIGA

Level	
Certified	This level indicates practical participation with thoroughly examination in relation to the recommended procedures from the audit committee or the SEC's certified auditor, being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) or already passed examination to ensure independence from external parties.
Declared	This level indicates determination to participate in the Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC)

Disclaimer:
The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by Thaipat Institute, is made in order to comply with the policy and sustainable development plan for the listed companies of th e Office of the Securities and Exchange Commission. Thaipat Institute made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company . The assessment result is therefore made from the perspective of Thaipat Institute that is a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, FSS International Investment Advisory Company Limited does not confirm, verify, or certify the accuracy and completeness of the assessment results.

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

Source: The Securities and Exchange Commission, Thailand; * FSSIA's compilation

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok, CFA, FRM, ERP FSS International Investment Advisory Securities Co., Ltd

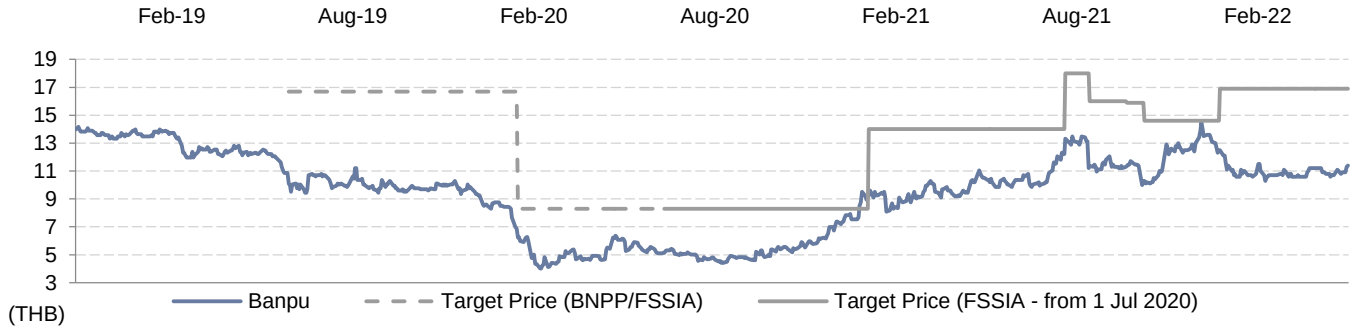
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed herein.

This report has been prepared by FSS International Investment Advisory Company Limited (FSSIA). The information herein has been obtained from sources believed to be reliable and accurate; however FSS makes no representation as to the accuracy and completeness of such information. Information and opinions expressed herein are subject to change without notice. FSS has no intention to solicit investors to buy or sell any security in this report. In addition, FSS does not guarantee returns nor price of the securities described in the report nor accept any liability for any loss or damage of any kind arising out of the use of such information or opinions in this report. Investors should study this report carefully in making investment decisions. All rights are reserved.

This report may not be reproduced, distributed or published by any person in any manner for any purpose without permission of FSSIA. Investment in securities has risks. Investors are advised to consider carefully before making investment decisions.

History of change in investment rating and/or target price

Banpu (BANPU TB)



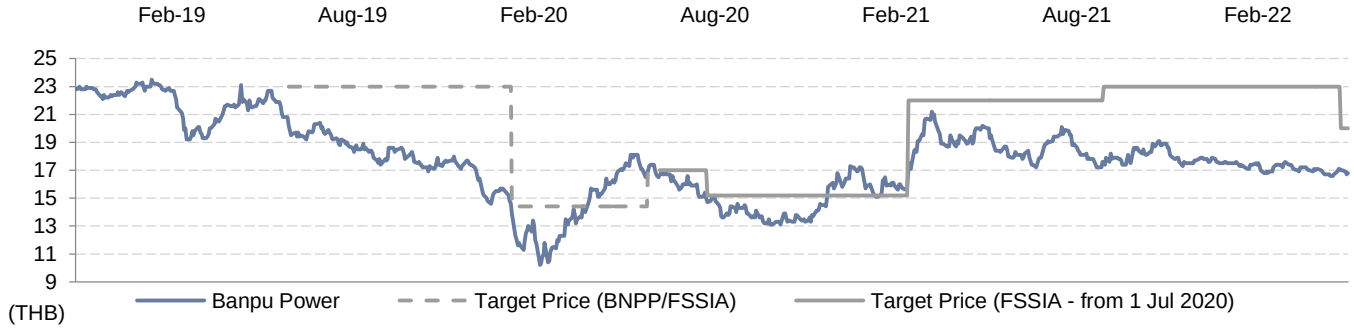
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
13-Aug-2019	BUY	16.70	23-Dec-2020	BUY	14.00	02-Aug-2021	BUY	15.90
26-Feb-2020	HOLD	8.30	10-Jun-2021	BUY	18.00	17-Aug-2021	BUY	14.60
09-Oct-2020	BUY	8.30	01-Jul-2021	HOLD	16.00	21-Oct-2021	BUY	16.90

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 26-Feb-2020

Price and TP are in local currency

Source: FSSIA estimates

Banpu Power (BPP TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
13-Aug-2019	HOLD	23.00	06-Aug-2020	HOLD	15.20	02-Feb-2022	BUY	20.00
21-Feb-2020	HOLD	14.40	26-Jan-2021	BUY	22.00			
17-Jun-2020	HOLD	17.00	13-Jul-2021	BUY	23.00			

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 17-Jun-2020

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Banpu	BANPU TB	THB 11.40	BUY	We see downside risks to our SoTP-based TP from lower coal prices, higher diesel costs and any unplanned shutdowns of its power plants.
Banpu Power	BPP TB	THB 16.80	BUY	Downside risks to our SOTP valuation are the start-up delays of its new projects and government intervention in the electricity tariff.

Source: FSSIA estimates

Additional Disclosures

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finansia Syrus Securities Public Company Limited

FSSIA may incorporate the recommendations and target prices of companies currently covered by FSS Research into equity research reports, denoted by an 'FSS' before the recommendation. FSS Research is part of Finansia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 09-Feb-2022 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as (target price* - current price) / current price.

BUY (B). The upside is 10% or more.
HOLD (H). The upside or downside is less than 10%.
REDUCE (R). The downside is 10% or more.
Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Industry Recommendations

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.
Neutral. The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.
Underweight. The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

Country (Strategy) Recommendations

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.