

2 AUGUST 2021

THAILAND / MATERIALS

BANPU BANPU TB

BUY

FROM HOLD

TARGET PRICE	THB15.90
CLOSE	THB13.30
UP/DOWNSIDE	+19.5%
PRIOR TP	THB16.00
CHANGE IN TP	-0.6%
TP vs CONSENSUS	+3.3%

ปัจจัยผลักดันจากถ่านหินและก๊าซ

ปรับแผนเพิ่มทุน

เมื่อวันที่ 20 ก.ค. 2021 BANPU ประกาศปรับแผนเพิ่มทุน 100% โดยจะออก 3 เครื่องมือทางการเงินประกอบด้วย การเสนอขายหุ้นเพิ่มทุนแก่ผู้ถือหุ้นเดิม (RO) การออกใบสำคัญแสดงสิทธิ BANPU-W4 และ BANPU-W5 บริษัทฯ จะตัด BANPU-W6 ออกจากแผน อย่างไรก็ตาม หุ้นคงค้างจะยังเพิ่มรวม 5.075 พันล้านหุ้น ซึ่งจะทำให้หุ้นคงค้างเพิ่มเท่าตัวเป็น 10.15 พันล้านหุ้น ปัจจุบันราคาหุ้นจดทะเบียนที่จะเพิ่มจากเครื่องมือทางการเงินทั้ง 3 ประเภทจะอยู่ที่ 29.6 พัน ลบ. (USD958 ล้าน) ลดลงจาก 31.7 พัน ลบ. (USD1 พันล้าน) จากข้อมูลของผู้บริหารบริษัทฯ จะใช้เงินทุนที่เพิ่มขึ้นเพื่อลดหนี้และสนับสนุนโครงการเพื่อการเติบโตในอนาคต

จากเปลี่ยนผ่านเป็นเปลี่ยนแปลงไปสู่บริษัทที่โตอย่างเป็นมิตรต่อสิ่งแวดล้อมมากยิ่งขึ้น

ปัจจุบันกลุ่มบริษัท Banpu กำลังอยู่ระหว่างการเปลี่ยนแปลงจากองค์กรที่โตจากถ่านหินไปสู่องค์กรที่เป็นมิตรต่อสิ่งแวดล้อมมากยิ่งขึ้น โดยจะหันเหจากธุรกิจที่เกี่ยวข้องกับถ่านหินไปยังธุรกิจเหมืองโลหะและเทคโนโลยีพลังงาน ประกอบด้วยยานยนต์ไฟฟ้า (EV) แบตเตอรี่ และพลังงานหมุนเวียน ในปี 2021-25 BANPU วางแผนใช้เงิน USD2 พันล้านใน 4 บริษัทเรือธง ประกอบด้วย: 1) BANPU สำหรับการทำให้เหมืองโลหะและลิเทียม; 2) Banpu Power (BPP TB, BUY, TP THB23) สำหรับธุรกิจไฟฟ้าประกอบด้วยโรงไฟฟ้าที่ใช้ LNG ในสหรัฐฯ และเวียดนาม รวมถึงโรงไฟฟ้าพลังงานหมุนเวียนในเอเชีย; 3) Banpu NEXT สำหรับการลงทุนในเทคโนโลยีพลังงาน; และ 4) Banpu North America Corporation เพื่อลงทุนในธุรกิจอื่นในกลุ่มธุรกิจก๊าซ ในสหรัฐฯ ประกอบด้วย ท่อก๊าซและโรงทำให้ก๊าซ เป็นของเหลว (LNG liquefaction plant)

เกาะกระแสราคาถ่านหินและก๊าซ ที่อยู่ในระดับสูงในปี 2021-22

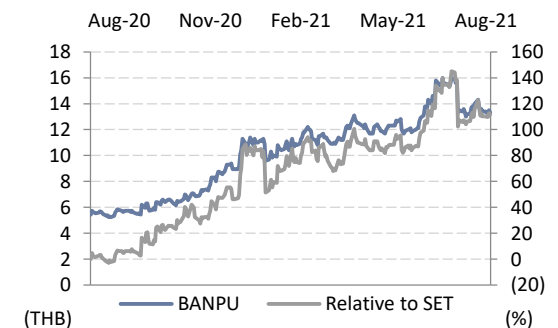
เราเชื่อว่าในช่วง 2H21-2022 BANPU จะได้ประโยชน์อย่างมากจากราคาถ่านหินและก๊าซ ที่อยู่ในระดับสูง โดยจะได้ประโยชน์จากราคาขายเฉลี่ย (ASP) ที่สูงขึ้นของถ่านหินและก๊าซ รวมถึงต้นทุนการทำเหมืองและการผลิตก๊าซ จากชั้นหินดินดานที่อยู่ในระดับต่ำ ซึ่งเราคาดว่า จะมีต้นทุนเท่ากับ Newcastle Coal Price Index ที่ USD65-75/t สำหรับเหมืองถ่านหินในอินโดนีเซียและออสเตรเลีย และ Henry Hub Gas Price Index ที่ USD2.4/mmbtu สำหรับก๊าซ ที่ได้จากชั้นหินดินดานในสหรัฐฯ

ปรับเพิ่มคำแนะนำเป็นซื้อหลังปรับลดราคาเป้าหมายเป็น 15.9 บาท

ในขณะที่เราคงประมาณการกำไรสุทธิ เราปรับเพิ่มคำแนะนำเป็นซื้อจากถือหลังปรับลดราคาเป้าหมายจาก 16 เป็น 15.9 บาท (SoTP) เพื่อสะท้อนจำนวนหุ้นคงค้างที่เพิ่มขึ้นจาก RO ในปี 2021 เราเชื่อว่าราคาหุ้นของ BANPU ได้สะท้อนผลกระทบทางลบจากการเพิ่มทุนไว้แล้วและมีแนวโน้มที่จะปรับตัวขึ้นในช่วง 2H21 โดยได้ปัจจัยผลักดันจากกำไรสุทธิที่คาดว่าจะโตอย่างเห็นได้ชัดจากราคาถ่านหินและก๊าซ ที่อยู่ในระดับสูงอย่างต่อเนื่องและโครงการทั้งภายในและภายนอกที่ได้รับการยืนยันแล้วจากการควมรวมและซื้อกิจการที่อาจเกิดขึ้นในอนาคต

KEY STOCK DATA

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	71,332	86,862	79,150	80,277
Net profit	(1,786)	8,905	8,002	8,565
EPS (THB)	(0.35)	1.62	1.11	0.96
vs Consensus (%)	-	14.7	(8.8)	(8.5)
EBITDA	9,287	31,959	30,652	33,436
Core net profit	(3,257)	9,271	8,368	8,931
Core EPS (THB)	(0.64)	1.69	1.16	1.01
Chg. In EPS est. (%)	nm	(1.9)	(7.4)	(10.7)
EPS growth (%)	nm	nm	(31.0)	(13.6)
Core P/E (x)	(20.7)	7.9	11.4	13.2
Dividend yield (%)	3.8	5.9	3.3	3.1
EV/EBITDA (x)	24.7	7.0	8.2	8.3
Price/book (x)	1.1	0.9	1.0	1.1
Net debt/Equity (%)	165.3	119.6	107.5	91.3
ROE (%)	(4.8)	13.2	9.8	8.7



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(14.7)	8.1	146.3
Relative to country (%)	(11.1)	12.5	112.9
Mkt cap (USD m)	2,053		
3m avg. daily turnover (USD m)	50.0		
Free float (%)	88		
Major shareholder	Vongkusolkrit Family (13%)		
12m high/low (THB)	16.50/5.15		
Issued shares (m)	5,074.58		

Sources: Bloomberg consensus; FSSIA estimates



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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 2 สิงหาคม 2021

Investment thesis

We believe BANPU's earnings growth outlook will improve in 2021-22, 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 (NCT) index coal prices in the range of USD68-70/tonne should lead to higher coal earnings in 2021-22. Power earnings should gradually improve with the resumption of full operations at Hongsa power plant, as well as from 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 2021-22. First, BANPU's gas earnings are in an upcycle due to the tighter supply in the US. Second, we expect coal earnings of upward of THB1b-2b, including interest expenses, for 2021-22 on the back of USD75-90/tonne index coal prices. Finally, we see more upside for its power earnings due to higher projected net profit contributions from Hongsa.

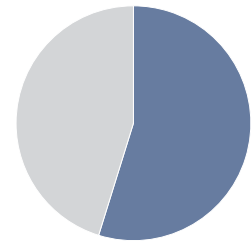
Company profile

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)

■ Coal - 54.8 % ■ Others - 45.2 %

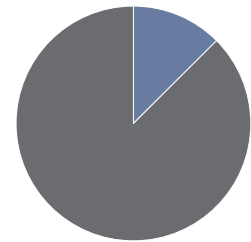


Source: Banpu

Major shareholders

■ Vongkusolkrit Family - 12.5 %

■ Others - 87.5 %



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. We see upside risks from higher coal prices, higher gas prices and lower costs.

Event calendar

Date	Event
Aug 2021	2Q21 results announcement

Key assumptions

	2021E	2022E	2023E
Coal sales volume (mtpa)	33.5	34.0	34.0
Newcastle coal price (USD/t)	90.0	75.0	70.0
ASP for coal (USD/t)	73.2	61.0	65.0
Total cost - Indonesia (USD/t)	60.5	57.9	57.5
Total cost - Australia (USD/t)	55.0	55.0	55.0

Source: FSSIA estimates

Earnings sensitivity

- Ceteris paribus, for every 1% rise in average coal price, we project 2021 EPS to rise by 2.6%, and vice versa.
- Ceteris paribus, for every 1% rise in coal sales volume, we estimate 2021 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

Revised capital increase plan

On 20 July 2021, BANPU announced its adjustment plan for a 100% capital increase by issuing three financial instruments: a rights offering (RO) and the warrants BANPU-W4 and BANPU-W5. It will eliminate BANPU-W6 from its capital increase plan. The total increase in shares outstanding will remain the same at 5.075b, doubling its number of shares outstanding to 10.15b shares.

We estimate that the total capital to be raised from these three instruments will now be THB29.6b (USD958m), down from THB31.7b (USD1b), as the exercise price of BANPU-W6 at THB7.5 is higher than the exercise prices of the RO (THB5) and BANPU-W4 (THB5) – the two financial instruments that will mostly replace BANPU-W6. The capital raised will be used to reduce debt and to fund its future growth projects, according to management.

The three instruments issued (XR date on 16 August 2021) for the 100% capital increase are:

- 1.692b RO shares, up from 1.269b, at three existing shares to one RO (3:1) with an exercise price of THB5/share;
- 1.692b BANPU-W4 shares, up from 1.269b, attached to the RO with an exercise price of THB5/share for a 1-year warrant life, exercisable only in September 2022, as it is a European warrant;
- 1.692b BANPU-W5 shares, up from 1.269b, attached to the RO with an exercise price of THB7.5/share for a 2-year warrant life, exercisable in September 2023, as it is a European warrant;

Exhibit 1: Capital increase plan

Instrument	Number of shares	% increase in shares	Exercise price	Amount	Transaction	XR date	Warrant life	Expiration date	Payment date
	(m shares)	(%)	(THB/share)	(THB m)					
Number of existing shares outstanding	5,074.6		15.6	79,163.5					
RO	1,691.5	33.3	5.0	8,457.6	XR	16-Aug-21		Sep-21	6-17 Sep 2021
BANPU-W4	1,691.5	33.3	5.0	8,457.6	XR	16-Aug-21	1	Oct-22	na
BANPU-W5	1,691.5	33.3	7.5	12,686.5	XR	16-Aug-21	2	Oct-23	na
BANPU-W6	na	na	7.5	-	XR	na	3	Oct-23	na
Total	10,149.2	100.0		29,601.7					

Sources: BANPU; FSSIA estimates

Our view on the capital increase remains negative considering that:

- The 25% RO portion will be immediate and will likely dilute the company's EPS by up to 25% in 2021;
- The ensuing issuance of the two warrants (BANPU-W4 and W5) with an additional dilution impact for each warrant will likely lead to a share price overhang without any clarification of the capital raised to fund any new growth projects.

Exhibit 2: DE and net DE pre and post capital increase without BANPU W-6

	Without capital increase	With RO	With RO+W4	With RO+W4+W5	With RO+W4+W5+W6
Equity (THB m)	89,219	97,676	106,134	118,821	na
Debt-to-equity (x)	2.02	1.85	1.70	1.52	na
Net debt-to-equity (x)	1.70	1.46	1.35	1.20	na
Net debt-to-equity covenant (x)	1.75	1.75	1.75	1.75	na
2021E net profit (THB m)	8,905	8,905	8,905	8,905	na
2021E EPS (THB/share)	1.62	1.32	1.05	0.88	na
% EPS dilution (%)		(25.0)	(40.0)	(50.0)	na

Sources: BANPU; FSSIA estimates

Our analysis indicates that without this capital increase, BANPU's net DE ratio would rise from 1.58x at end-1Q21 to 1.75x at end-2021 when BANPU completes its THB10b debenture issuance in August 2021. This 1.75x net DE would be on the brink of its 1.75x covenant, potentially leading to a debt default and preventing BANPU from funding additional growth projects via M&A.

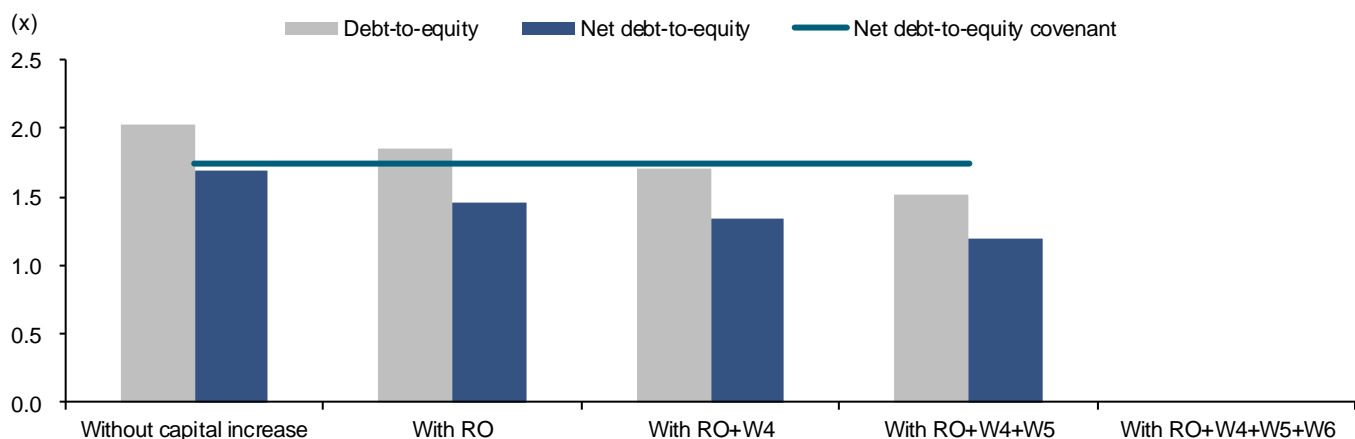
In 2021-24, we estimate that BANPU could raise a total of THB29.6b (USD958m), raising THB8.5b from the 1.692b RO in 2021, THB8.5b from the exercise of BANPU-W4 in 2022, and THB12.7b from the exercise of BANPU-W5 in 2023. The previously planned THB9.5b cash raised from the exercise of BANPU-W6 in 2024 is now eliminated from the plan.

Exhibit 3: Financial position pre and post capital increase

Financial position pre capital increase		1Q21	Unit
Cash		29,336	THB m
Debt		170,622	THB m
Equity		89,219	THB m
Net debt		141,286	THB m
Debt-to-equity		1.91	x
Net debt-to-equity		1.58	x
Debt covenant		1.75	x
Financial position post capital increase			
Cash post RO		37,794	THB m
Debenture		10,000	THB m
Debt post THB10b debt raised		180,622	THB m
Net debt		142,828	THB m
Equity raised - RO		8,458	THB m
Equity post RO		97,676	THB m
Equity post RO+W4		106,134	THB m
Equity post RO+W4+W5		118,821	THB m
Equity post RO+W4+W5+W6		na	THB m

Sources: BANPU; FSSIA estimates

Exhibit 4: DE, net DE, and net DE covenant without BANPU W-6



Sources: BANPU; FSSIA estimates

A transition to a “greener and smarter” organisation

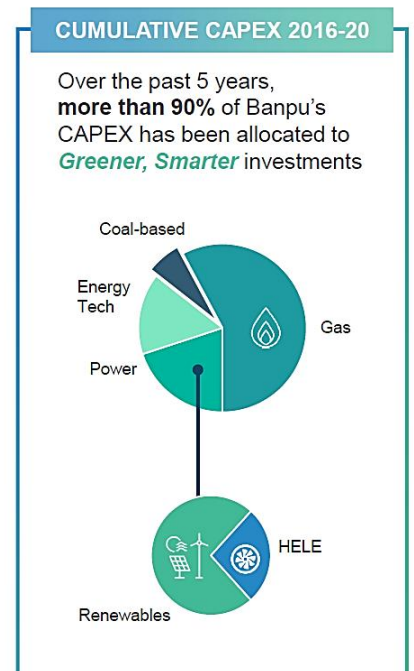
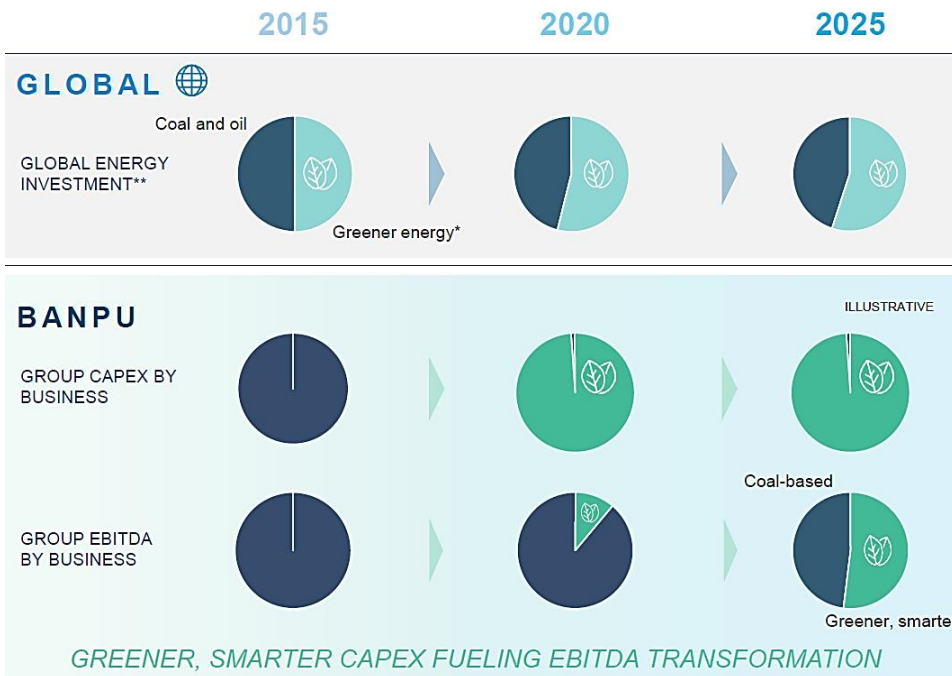
The Banpu group is now undergoing a transformation from a coal-driven into a greener and smarter organisation, essentially shifting away from coal-related businesses like coal mining and coal-fired power plants to metal mining and new energy technologies, which includes EVs, batteries, and renewable energy.

Management indicated that the capital increase is necessary for BANPU to fund its multiple growth projects and still retain a healthy balance sheet. They stated that the increase with the staggering capital raised from one RO and two exercises of BANPU-W4 and W5 in September 2022 and September 2023, will be mostly directed toward green energy via four flagship companies under the Banpu group.

In 2021-25, management indicated that the Banpu group plans to spend USD2b on its four flagship companies to spearhead its strategic growth direction.

- 1) BANPU, mainly for mining. BANPU plans to capitalise on its existing high-quality coal mines in Indonesia and Australia as its cash cows and then reinvest into other non-coal mining businesses which could include metals, lithium for battery production, and other rare earth metals.
- 2) BPP for power. BPP plans to spend up to USD1b for power growth projects, including liquefied natural gas (LNG)-to-power plants in the US and Vietnam and renewable plants in Asia.
- 3) Banpu NEXT (NEXT, not listed), owned 50% equally by BANPU and BPP. NEXT is likely to secure USD0.5b capex for investments in energy technologies, focusing on batteries via Durapower (not listed), EVs, and solar rooftops.
- 4) Banpu North America Corporation Company Limited (BNAC), its subsidiary in the US, for the operation of shale gas assets. While BNAC is unlikely to grow its shale gas capacity further, given the current large-scale shale gas capacity of 800mmscfd, BNAC plans to invest in other businesses in the US gas value chain, including gas pipelines and LNG liquefaction plants.

Exhibit 5: Capex plan to achieve BANPU's greener and smarter strategy



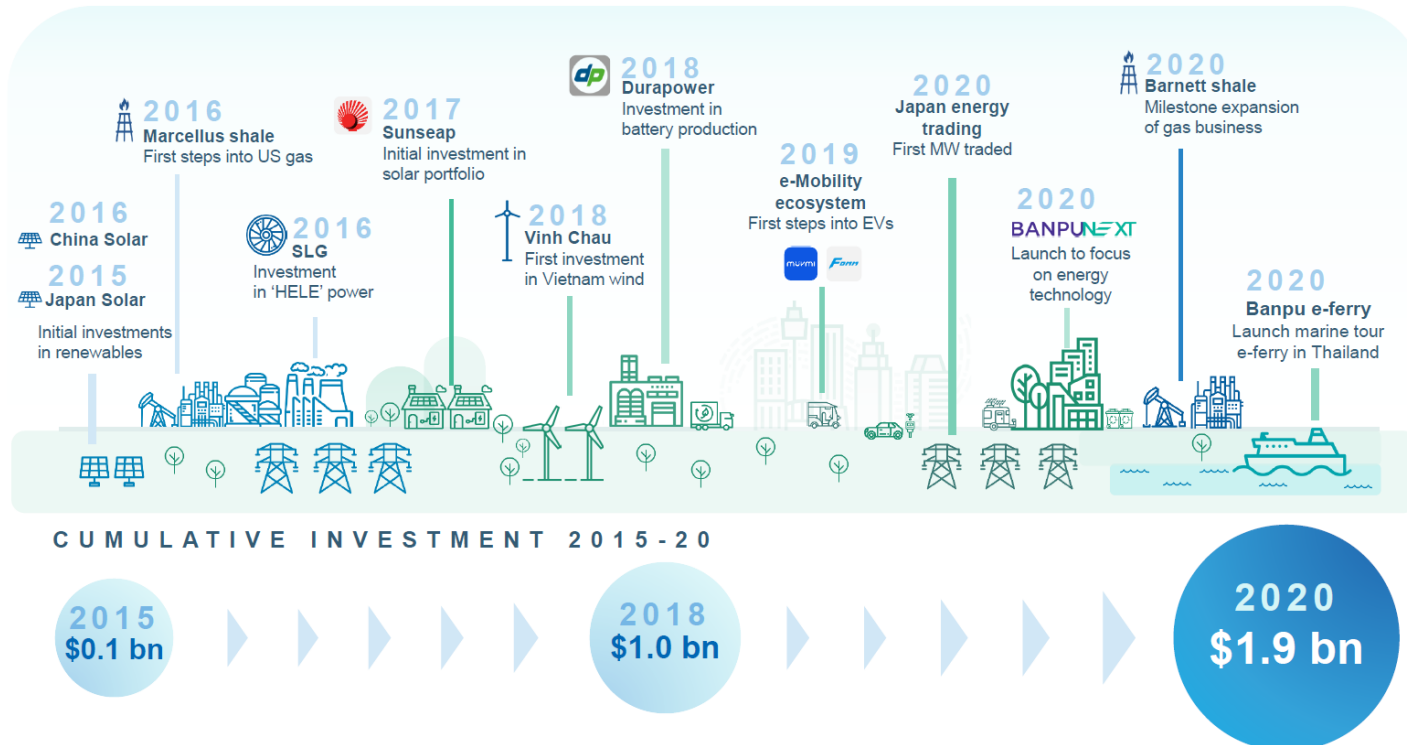
Source: BANPU

According to management, the transition process will be gradual, with the change in business composition focusing less on coal-related assets and more on green and clean energy and energy technology ventures. The ongoing transformation could take five years, with the aim of maintaining its business scale and cash flows.

The four flagships – BANPU, BPP, BNAC, and NEXT – will be geared to pursue different growth directions, but all will focus on green growth trajectories in smarter businesses to ride the megatrends of consumers’ lifestyles and behaviours, along with technology advancement.

However, in this report we will analyse only BANPU's two key flagship units – BANPU for mining and BNAC for US shale gas – as these two units will be the most significant earnings growth drivers for BANPU in 2H21-2022, in our view.

Exhibit 6: BANPU’s historical growth path toward a greener company



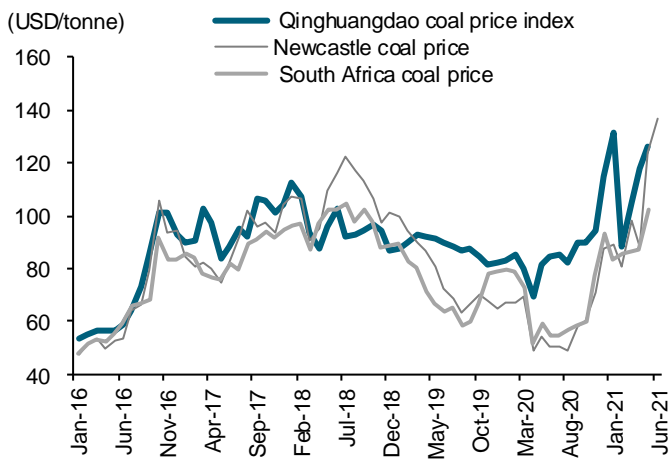
Source: BANPU

Growth factor #1: Mining coal for cash to fund future mining ventures

Management indicated that BANPU will remain its flagship for the mining business, but the group will no longer focus on long-term growth for coal but instead on short-term profit maximisation. The case in place is BANPU's shift in strategy to maximise the profitability of its existing coal mines in Indonesia via production maximisation rather than on coal reserves and resource increases by raising its stripping ratio. BANPU also indicated that the company has no policy to seek additional growth for coal mining and intends to focus on its existing coal reserves and resources for profit maximisation.

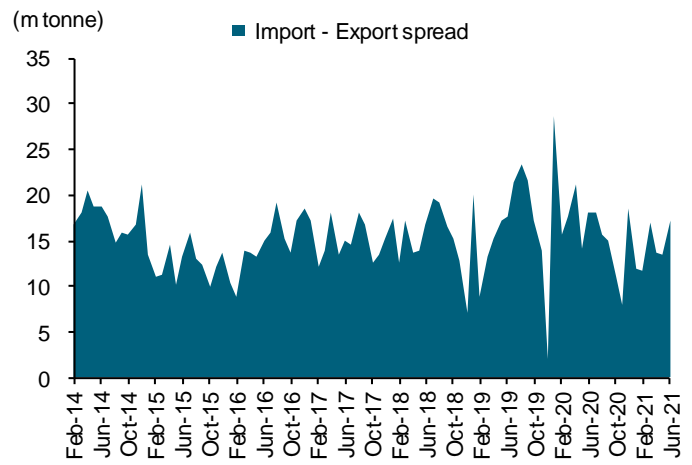
Coal price uptrend should continue in 2H21. The structural supply shortage in Australia and China and the strong coal demand growth have pushed the Newcastle (NCT) coal price index and China's Qinghuangdao (QHD) coal price index higher, surpassing the USD85-100/t benchmark price (RMB530/t to RMB580/t) preferred by the Chinese government.

Exhibit 7: Benchmark coal prices (QHD vs NCT)



Source: Bloomberg

Exhibit 8: Coal price gap between QHD and NCT

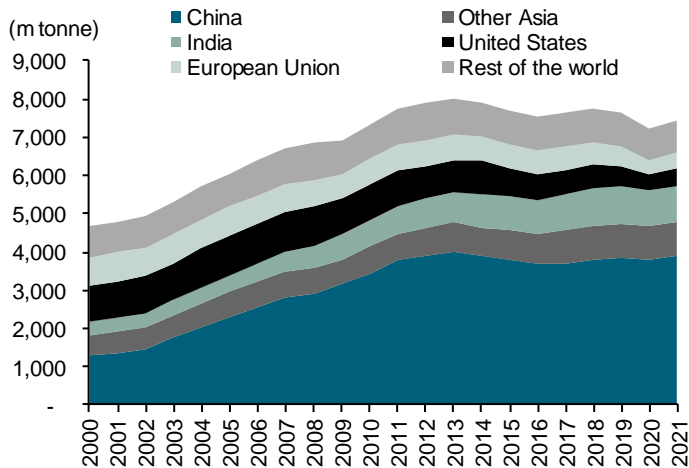


Source: Bloomberg

China shuts more coal mines amid rising concerns over industrial accidents.

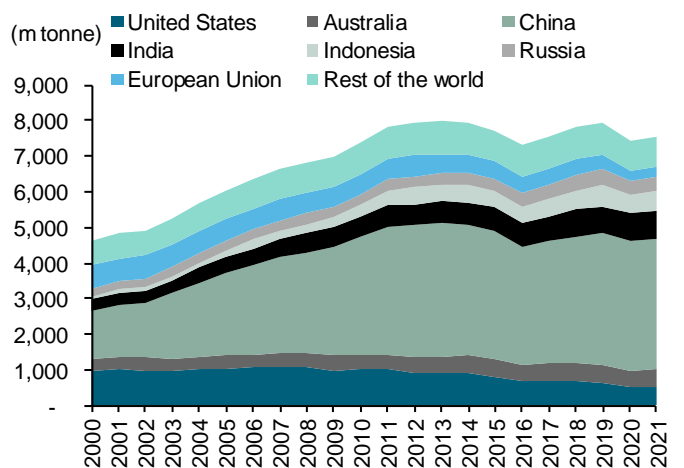
Despite the coal price spike, China, the world's biggest importer, producer and consumer of coal, has shut down numerous coal mines in June to July 2021 to curb the number of industrial accidents. From 15 June to 5 July, Hubei halted all coal mining operations after a gas pipeline explosion in the province that killed 25 people on 13 June 2021, according to Bloomberg.

Exhibit 9: Global coal consumption by region



Source: International Energy Agency (IEA)

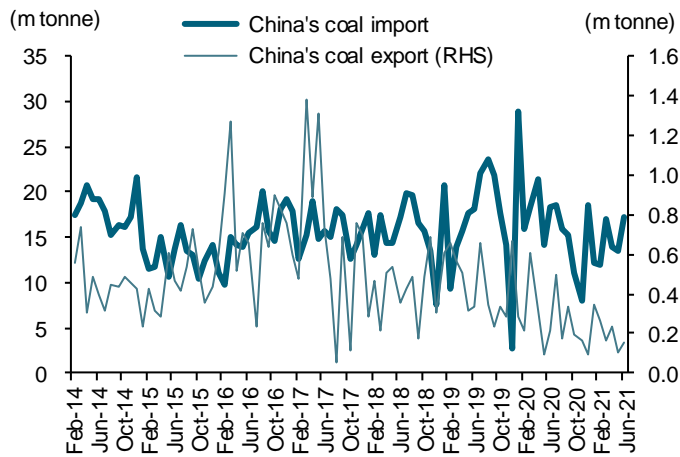
Exhibit 10: Global coal production



Source: IEA

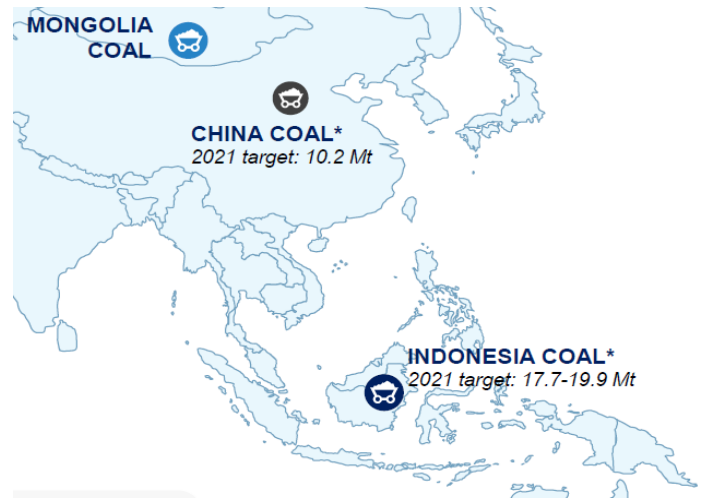
The rising hydro and solar power plant outputs, and the higher coal production and imports are expected to force a decline in the coal price in China. Yet, the coal price has continued to rise in China and globally, reflecting that the coal supply is tight and inelastic to the rising demand for coal to serve the higher electricity demand in China to fight the heat wave this summer.

Exhibit 11: China's coal imports and exports



Source: Bloomberg

Exhibit 12: BANPU's coal mining in China and Indonesia

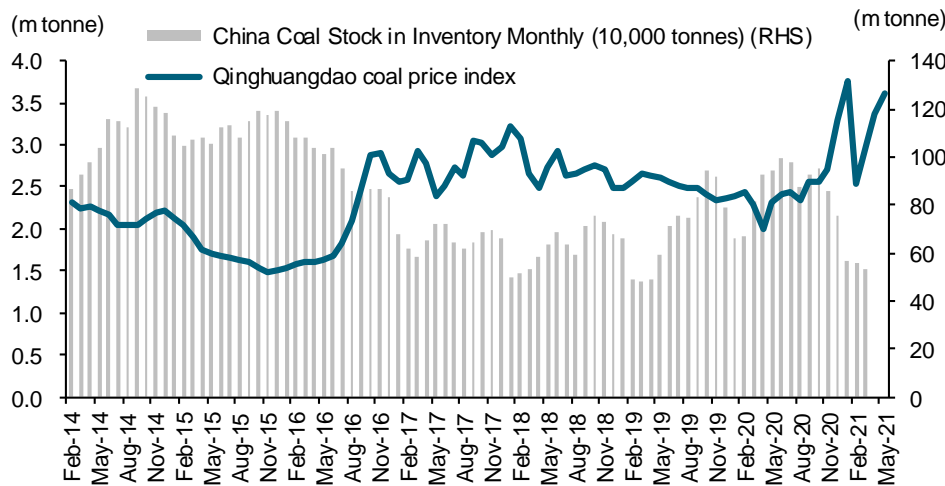


Source: BANPU

China's plan to curb the coal price hike by releasing its coal reserves in 3Q21.

China's National Development and Reform Commission (NDRC) indicated on 15 July 2021 that it was aiming to release more than 10mtpa of its state coal reserves, with the potential for further releases in line with market demand. In 1H21, coal had already been released four times from state reserves, amounting to 5mtpa. Although the figure is tiny compared to China's coal production, which was estimated to be at 320mtpa in July 2021, the NDRC plans to reduce the domestic coal price by releasing more state coal reserves to ease the coal price hike.

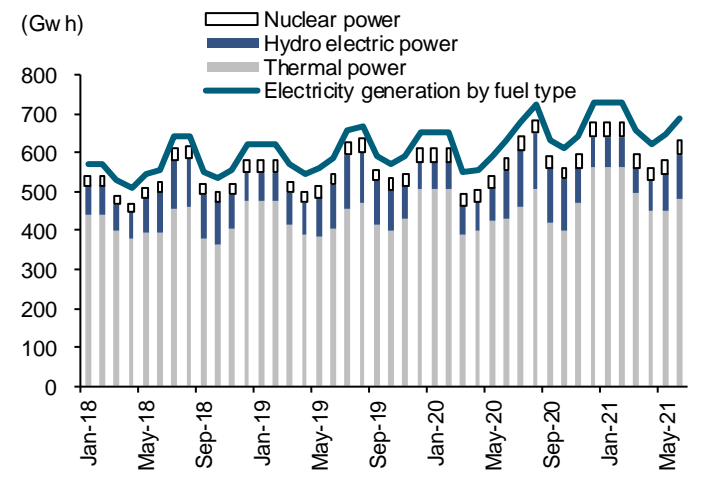
Exhibit 13: China's coal inventory vs QHD coal price index



Source: Bloomberg

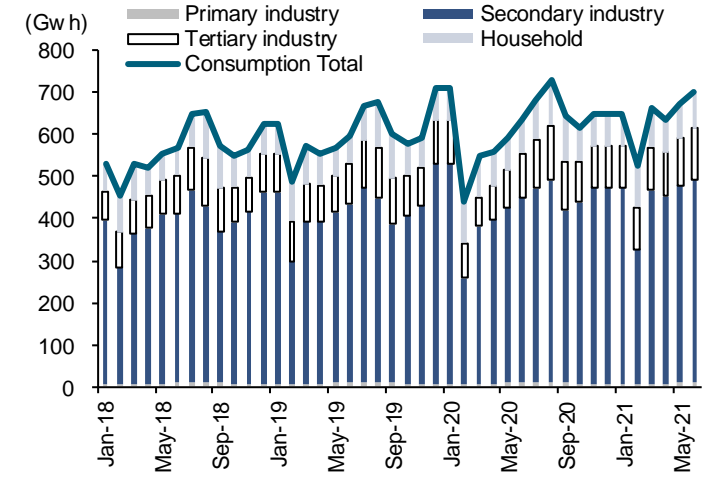
Despite a 6.6% y-y higher coal production level in 1H21, China's coal demand continued to rise in 1H21. China's industrial production, a gauge of activity in the manufacturing, mining and utilities sectors, grew by 8.9% y-y in 2Q21, highlighting that industrial production growth in China has been stronger than the government expected.

Exhibit 14: Thermal power (mostly coal-fired) remains China's main power generation capacity



Source: Bloomberg

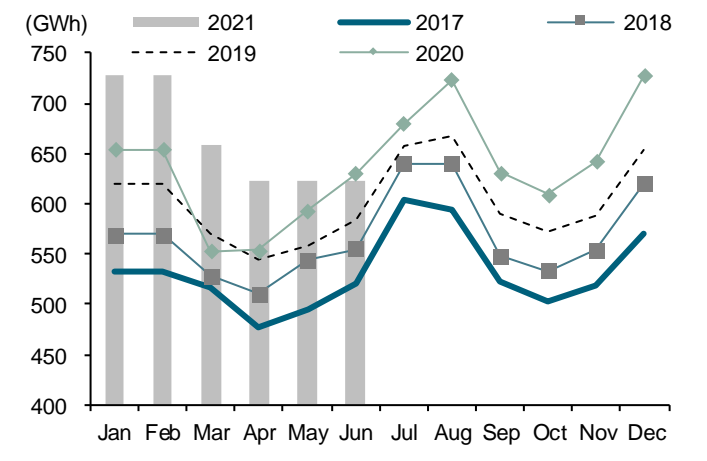
Exhibit 15: China's electricity demand has sharply rebounded above pre-Covid-19 levels



Source: Bloomberg

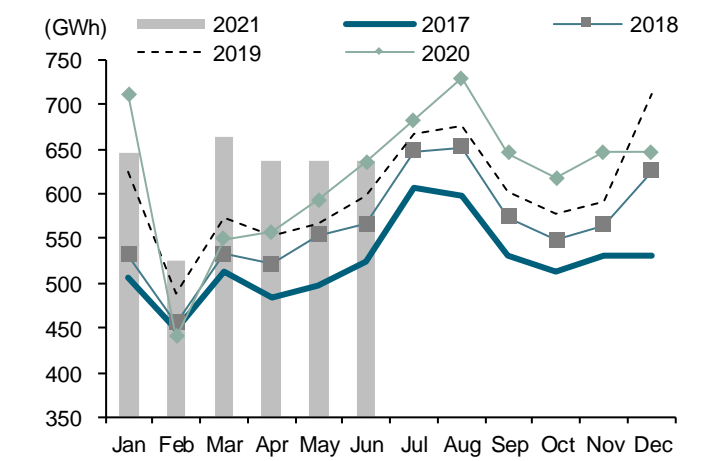
The latest move by the NDRC follows China's record coal import level in June 2021, which rose 35% y-y. Meanwhile, the 1H21 coal import level declined y-y due to China's unofficial import restrictions, which were put in place in March 2021 on the coal imported from Australia. In 1H21, China imported 115mt of coal, down 21mt y-y, but the strong coal demand should continue to sustain the coal price index above USD100/t in 2021, in our view.

Exhibit 16: China's electricity generation



Source: Bloomberg

Exhibit 17: China's electricity consumption

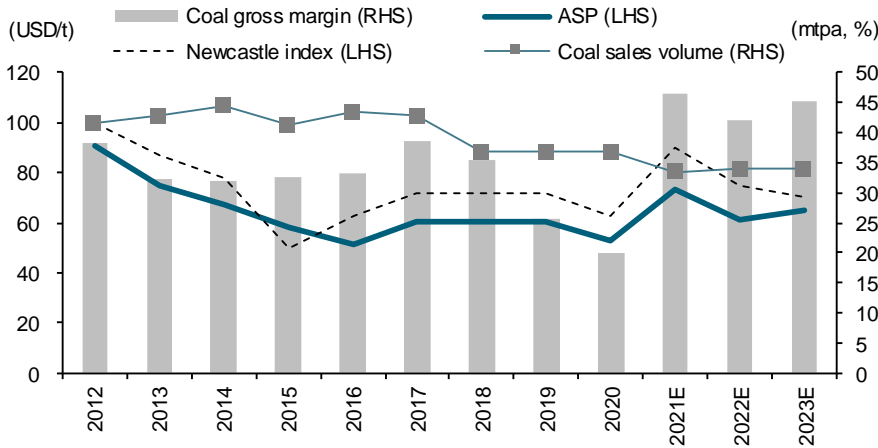


Source: Bloomberg

ASP for coal to rise in 2H21-2022. According to management, under the current coal high coal price environment, BANPU is attempting to fully capture the benefit of the coal price upside with a low pre-fixed ASP proportion for coal sales in advance (30% of the total sales volume) and low coal mining stripping ratios (8-10x stripping ratio). Hence, we think that in 2Q21 onward, BANPU should be able to maximise its net profit from the higher coal prices on the higher ASPs and relatively low mining costs.

The change in BANPU's coal sales strategy for 2021 onward, by locking in the coal price at a much smaller proportion has already resulted in a much higher ASP for 2021. Management indicated that it has now locked in its coal sales volume in 2021 at only 26% of its 2021 coal sales volume target of 23mt for its 65%-owned PT Indo Tambangraya Megah Tbk (ITMG ID), 5% y-y, and around 65% for its 13mt Centennial (CEY) in Australia, down from 71% in 2020. These proportions for ITMG and CEY are unchanged from 1Q21, reflecting that BANPU now is taking a greater risk to allow the company to benefit from the rising coal price.

Exhibit 18: Coal gross margin, ASP, and sales volume vs NCT coal price index



Sources: BANPU; FSSIA estimates

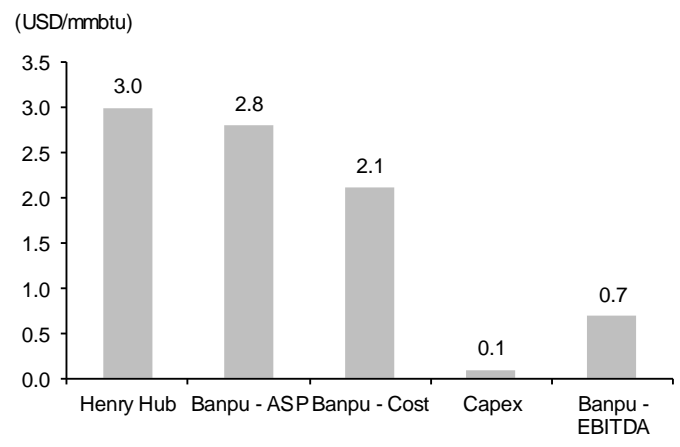
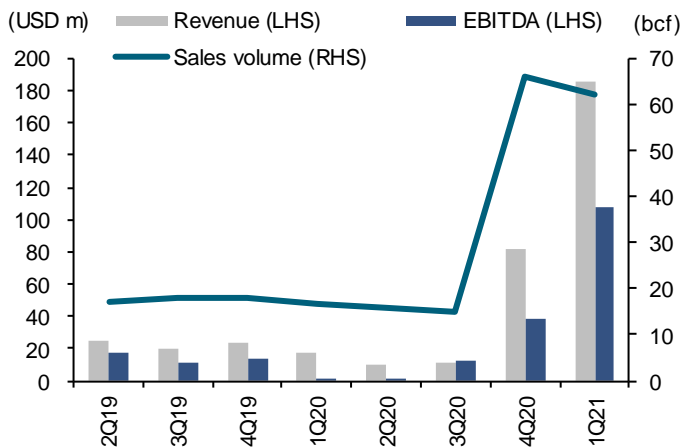
Growth factor #2: Higher gas price drives strong EBITDA

After fully consolidating the 597mmscfd acquired shale gas asset in Barnett since 4Q20, BANPU has seen its EBITDA from shale gas jump from USD13m in 3Q20 to USD39m in 4Q20 and USD108m in 1Q21, driven by both the sales volume from Barnett of 597mmscfd (75% of total capacity) and the higher ASP, as most of BANPU's shale gas costs are fixed.

We estimate that under the USD3/mmbtu US Henry Hub (HH) shale gas price index, BANPU's shale gas EBITDA would be USD0.7/mmbtu. We expect BANPU to generate EBITDA from shale gas of over USD100m per quarter in 2Q21-2022, supported by an HH price above USD3/mmbtu.

Exhibit 19: Shale gas revenue, EBITDA, and sales volume

Exhibit 20: BANPU's shale gas EBITDA

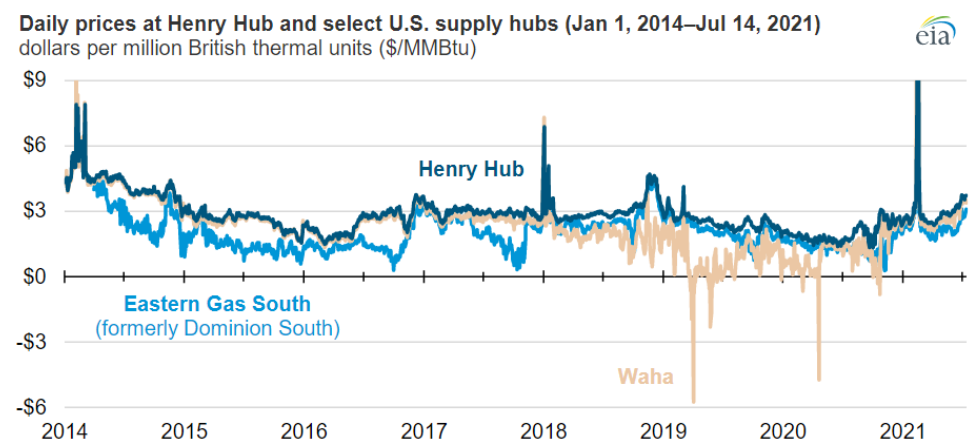


Source: BANPU

Sources: BANPU; FSSIA estimates

According to the Energy Information Agency (EIA)'s projections, the US gas price, represented by the HH benchmark index price, is projected to stay high at over USD3/mmbtu in 2H21-2022, driven by the tight supply and strong demand. In June 2021, HH averaged USD3.26/mmbtu, the highest price since any summer month (April-September) since 2014. The HH prices in July have increased further to an average of USD3.67/mmbtu, and the spot price benchmark exceeded USD3/mmbtu for every hub tracked by the EIA, even for the hubs like the Appalachian basin and the Waha hub, located near production sites in the Permian basin.

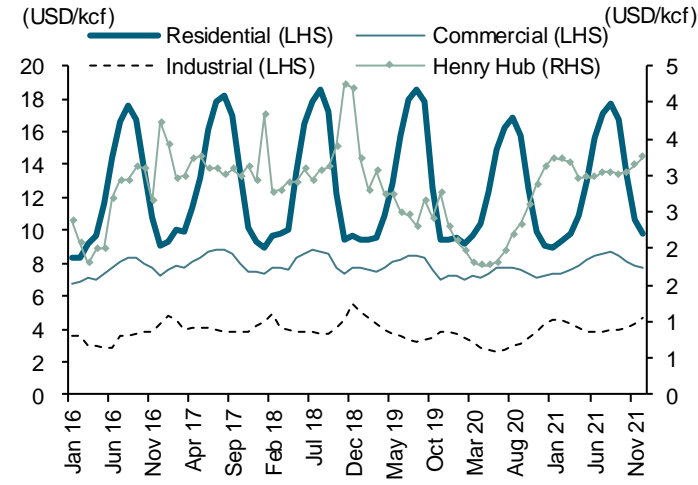
Exhibit 21: 2021 summer US gas prices are the highest since 2014



Source: EIA

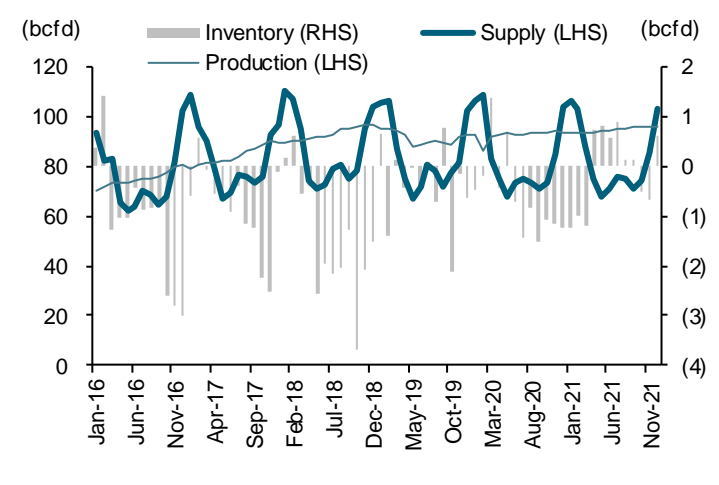
The tighter gas supply and demand balance in recent months has been exacerbated by the low gas inventory and refilling in the US and its rising gas exports via both pipeline to Mexico and Canada and LNG. Warm weather in the summer should also increase the demand for gas used to produce electricity. Less natural gas has been injected into working storage in the US this summer, exerting further upward pressure on the gas price.

Exhibit 22: US gas prices by segment



Source: EIA

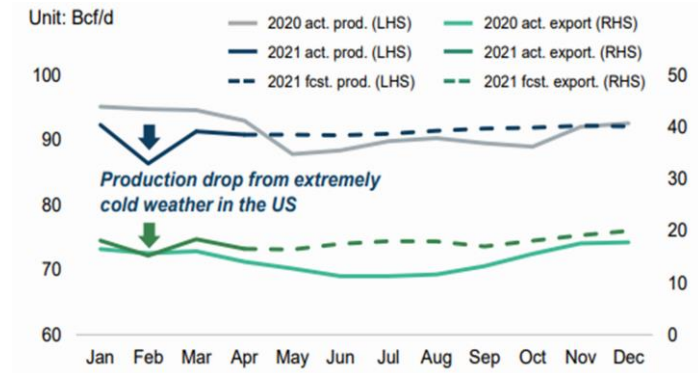
Exhibit 23: US gas production, supply, and balance



Source: EIA

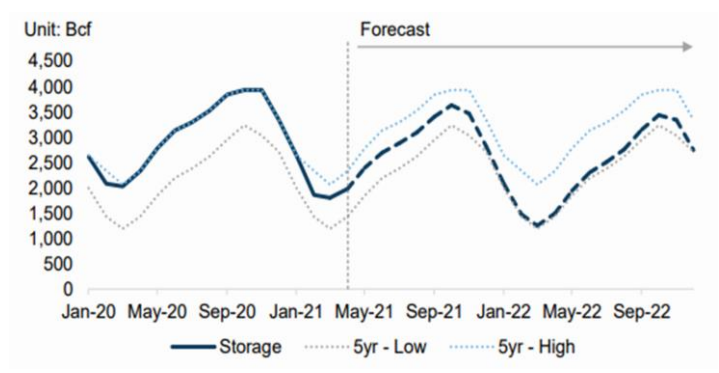
Low US gas inventory could carry on into 2022. According to the EIA, the working gas in storage in the US was 2,678 billion cubic feet (bcf) as of 16 July 2021, 189bcf below the five-year average and 543bcf below last year's inventory at this time. This represents a net increase of 49bcf from the previous week. Stocks were 532bcf less than last year at this time and 176bcf below the five-year average of 2,854bcf. At 2,678bcf, the total working gas is within the five-year historical range. Working natural gas in storage began the injection season (1 April to 31 October) at 1,784bcf, only 24bcf less than the five-year average. US working natural gas inventories are now at 2,629bcf.

Exhibit 24: US natural gas production



Source: BANPU

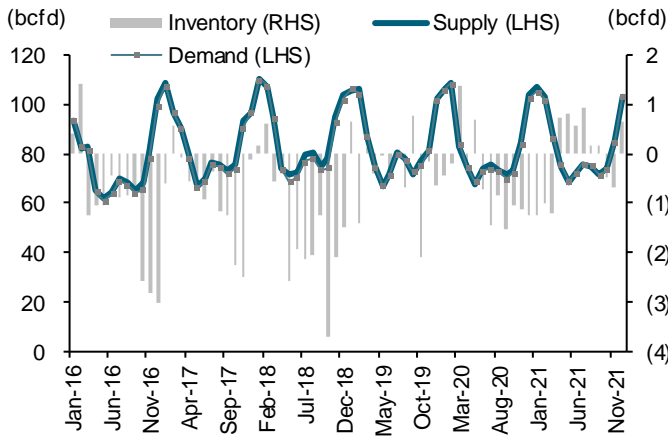
Exhibit 25: US storage level



Source: BANPU

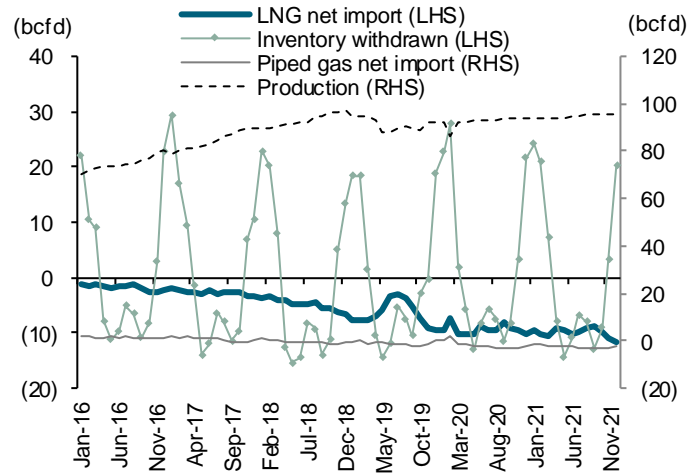
In 2020, as the country responded to the Covid-19 pandemic, CO2 emissions from energy consumption in the US fell to the lowest level since 1983. The 4.6 billion metric tonnes (bmt) of CO2 emitted in 2020 was an 11% decrease from 2019, the largest annual decrease on record, according to the EIA.

Exhibit 26: US gas demand, supply, and inventory



Source: EIA

Exhibit 27: US gas supply, including net LNG import, net import of piped gas, production, and inventory withdrawn



Source: EIA

US petroleum consumption accounted for 2.0bmt of energy-related CO2 emissions, or about 45% of the US total, in 2020. About 77% of petroleum CO2 emissions occurred in the transportation sector in 2020.

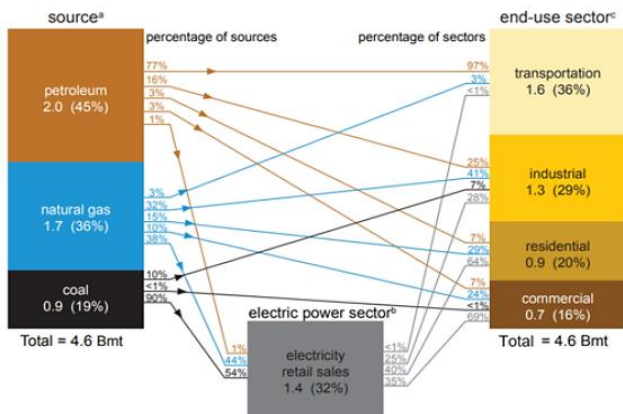
To reduce CO2 emissions, the US has continued to reduce the number of its coal-fired power plants and replace them with renewable and gas-fired power plants. This further increased the demand for gas used for power plants in the US.

In 2020, US natural gas consumption accounted for 1.7bmt of CO2 emissions, or about 36% of the total – its largest share on record. In 2020, about 38% of CO2 emissions from natural gas occurred in the electric power sector, and 32% were in the industrial sector.

In 2020, coal consumption accounted for 0.9bmt of CO2 emissions, or about 19% of total CO2 emissions – both its lowest total amount and share in the EIA’s annual data series that begins in 1973. In 2020, about 90% of CO2 emissions from coal occurred in the electric power sector. Coal consumption in the electric power sector has declined over the past decade, displaced by natural gas and renewable energy.

Exhibit 28: US carbon emissions by source and sector in 2020

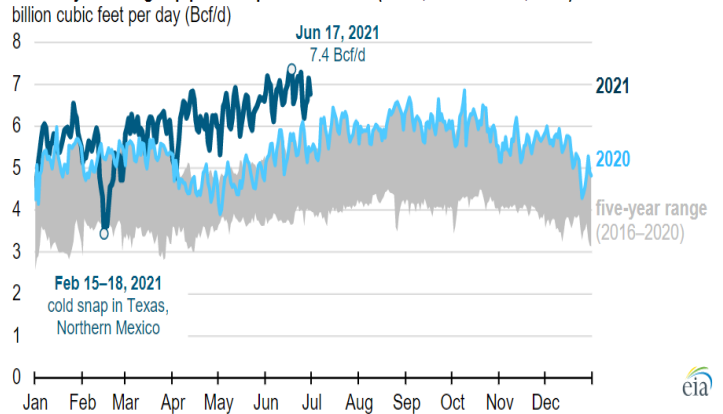
billion metric tons (Bmt) of carbon dioxide (CO₂)



Source: EIA

Exhibit 29: US gas exports to Mexico via pipeline

U.S. daily natural gas pipeline exports to Mexico (Jan 1, 2016–Jun 30, 2021)

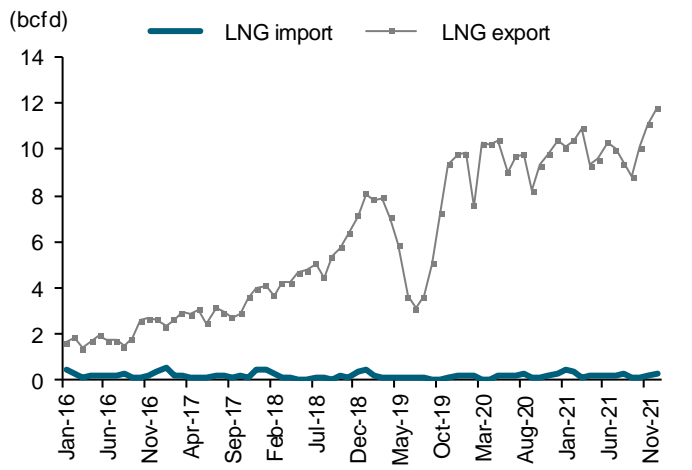


Source: EIA

In 2020, coal accounted for 54% of electric power CO2 emissions, even though coal accounted for 19% of electricity generation in the electric power sector last year.

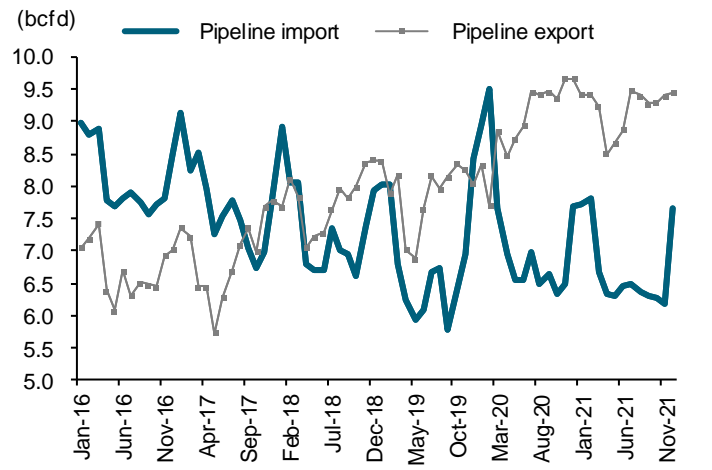
The US transportation sector emitted 1.6bmt of CO2 in 2020, or about 36% of the nation's total energy-related CO2 emissions. US transportation sector CO2 emissions dropped 15% from 2019 as a result of the decrease in petroleum consumption for travel during the Covid-19 pandemic. In 2020, petroleum accounted for 97% of US transportation sector CO2 emissions.

Exhibit 30: US LNG exports and imports



Source: EIA

Exhibit 31: US LNG pipeline exports and imports



Source: EIA

Recent US higher gas exports to Mexico further tightens the US gas market.

Natural gas pipeline exports from the US to Mexico surpassed 7 billion cubic feet per day (bcfd) on multiple days during June, according to the EIA. The highest amount of pipeline exports, 7.4bcfd, was sent out on 17 June. Over the past few years, Mexico has expanded its natural gas pipeline infrastructure and has relied increasingly on imported natural gas from US pipelines. Pipeline imports accounted for 76% of Mexico's total natural gas supply in June 2021, compared with 40% in June 2015. Mexico has reduced both its natural gas production and imports of LNG as a share of its total natural gas supply.

Exhibit 32: Key cross-border natural gas pipelines from US to Mexico



Source: EIA

The US remains the world's largest and most dominant producer of oil and gas.

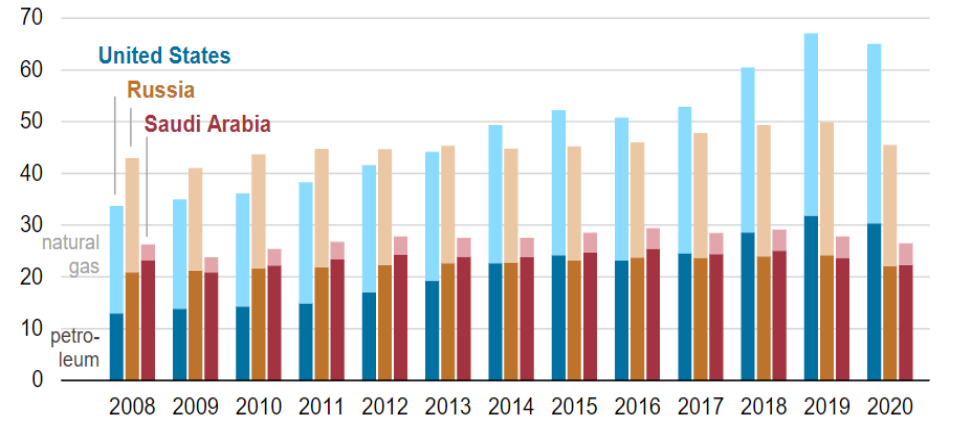
More petroleum and natural gas was produced in the US than in any other country during 2020, a trend that began in 2014, despite the y-y drop from the record-high production in 2019. The US petroleum and natural gas output in 2020 totalled 66.9 quadrillion btu (quads), which was more than both Russia's 45.5 quads and Saudi Arabia's 26.5 quads of petroleum and natural gas production.

Petroleum and natural gas production fell in all three countries in 2020 following a rapid decline in demand during the Covid-19 pandemic and the consequent crude oil price declines, particularly in the first quarter of 2020. Saudi Arabia and Russia agreed to reduce their crude oil production as part of an OPEC+ agreement, but in the US, reduced production was largely the result of a price-induced fall in tight oil investments and, to a lesser extent, unplanned outages.

Exhibit 33: US continued to lead global petroleum and natural gas production in 2020

Estimated petroleum and natural gas production in selected countries (2008–2020)

quadrillion British thermal units

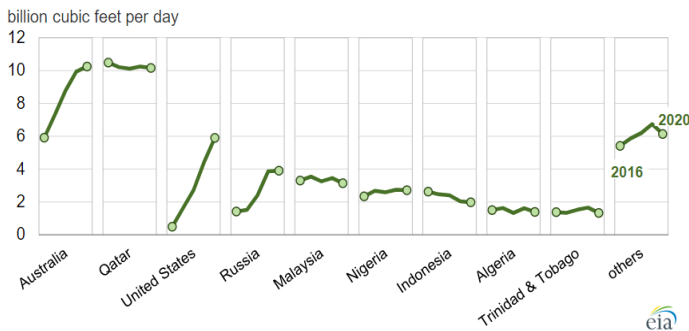


Source: EIA

Covid-19-driven decreases in demand affected natural gas production far less. In Russia, natural gas production fell in response to milder-than-normal temperatures during the 2020-21 winter and to increases in renewable electricity generation in the EU. Natural gas production in Russia fell by 2.1 quads, nearly equal to its decline of 2.3 quads in oil production.

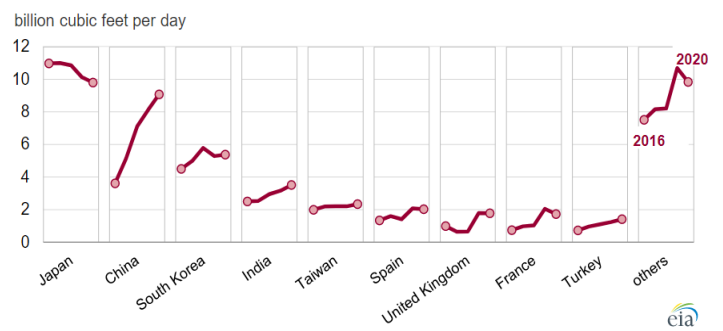
US now ranks third in the world for LNG exports. As a result of the US' dominant production of both oil and gas, it is now emerging to be one of the world's leading exporters of both oil and gas. Global trade in LNG in 2020 remained essentially unchanged from 2019, averaging 46.9bcf/d compared with 46.7bcf/d in 2019, according to the recently released data by the International Group of Liquefied Natural Gas Importers (GIIGNL).

Exhibit 34: World's top LNG exporters (2016-20)



Source: EIA

Exhibit 35: World's top LNG importers (2016-20)



Source: EIA

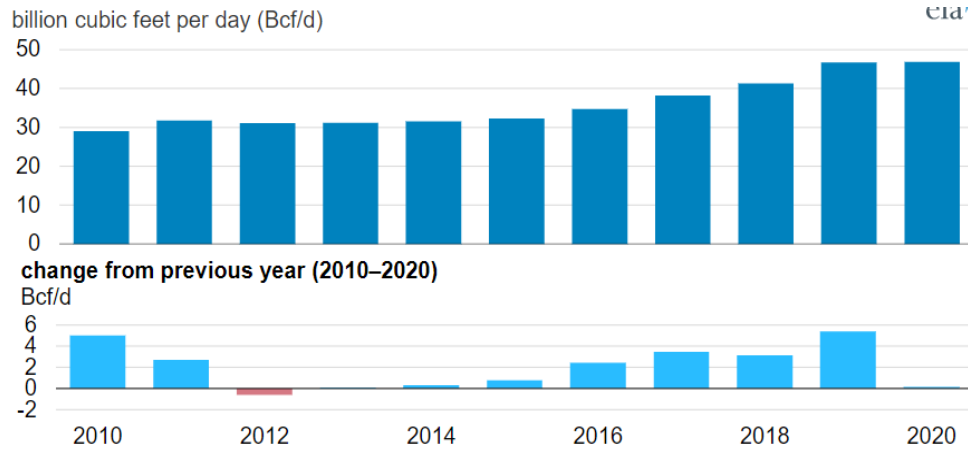
This 0.4% annual increase in LNG trade occurred despite the Covid-19 pandemic that reduced global natural gas demand. Between 2015 and 2019, global LNG trade expanded by 45%, posting record growth in both 2018 and 2019. This expansion primarily resulted from liquefaction capacity additions in Australia, the US, and Russia, which, combined, accounted for more than 90% of the global growth in liquefaction capacity during this period.

In 2020, LNG exports increased from only two countries – the US by 1.5bcf/d and Australia by 0.3bcf/d – compared with 2019. Last year, the US commissioned several new liquefaction units (called trains), namely the third and final trains at the Cameron LNG, Freeport LNG, and Corpus Christi LNG export facilities. as well as the remaining trains at the Elba Island LNG export facility.

With the spread of the Covid-19 pandemic and lockdowns in many LNG-consuming countries, US LNG exports significantly declined in June and July of 2020, but they have gradually increased in the months that followed and set consecutive all-time highs in November and December 2020.

In 2020, Australia became the world's largest LNG exporter for the first time, overtaking Qatar, with exports averaging 10.2bcf/d, an increase of 0.3bcf/d (3%) compared with 2019. Exports from Qatar declined by 0.1bcf/d (1%) compared with 2019. Exports from all other countries have either remained flat or declined, amounting to a combined 1.6bcf/d decrease compared with 2019.

Exhibit 36: Global LNG trade was flat y-y in 2020 amid pandemic



Sources: EIA

China emerges to be the world's second largest LNG importer in 2020. Among all LNG-importing regions, only Asia had an increase in annual LNG imports, by 1.1bcf/d (3%), in 2020 compared with 2019. China and India drove the overall annual increase. China's LNG imports increased by 1.0bcf/d and India by 0.4bcf/d in 2020. In China, continuous growth in LNG imports mainly resulted from government-supported coal-to-natural gas switching policies to reduce air pollution.

In India, all-time low spot LNG prices in the spring and summer of 2020 led to more fuel switching and an increase in LNG imports procured on a spot basis. LNG imports to Japan continued to decline in 2020, averaging 9.8bcf/d, which was 0.3bcf/d less than in 2019. Europe's LNG imports declined by 5%, averaging 10.7bcf/d in 2020, but remained significantly higher than the 6.1bcf/d in 2017 and 6.4bcf/d in 2018.

2Q21E preview

We project BANPU to post a soft 2Q21 net profit of THB1.4b, down 6.7% q-q and 157% y-y. Its core net profit is expected to rise to THB2.1b, up 208% q-q but down 327% y-y. Key factors are:

- Higher coal sales volumes of 5.3mt for ITMG and 2.8mt for CEY in 2Q21, up from 4.1mt and 2.6mt in 1Q21, respectively. The 5.3mt from ITMG is lower than expected due to the heavy rain in Indonesia, while the 2.6mt production from CEY is slightly below our expectation due to the longwall changeover.
- A higher 2Q21 ASP to USD80/t for ITMG vs USD68.4/t in 1Q21 and AUD88/t for CEY vs AUD80/t in 1Q21, driven by the higher coal price index.
- Production costs for both ITMG and CEY are expected to rise q-q to USD55/t and AUD84/t in 2Q21, up from USD51/t for ITMG in 1Q21 due to the rising diesel price and AUD83/t for CEY in 1Q21 due to the additional expense related to the longwall changeover.
- Coal operations in China are expected to contribute THB0.7b in 2Q21, up from THB527m in 1Q21, due to the higher coal price.
- BPP is expected to contribute THB1.1b to BANPU in 2Q21, up 9% q-q, driven by the higher utilisation rates for the Hongsa and BLCF coal-fired power plants.
- We project a net profit of THB0.4b in 2Q21 from the shale gas unit, given the slightly higher sales volume of 65bcf and the y-y higher gas price.
- We project a hedging loss of THB0.6b, up from a THB147m loss in 1Q21, due to the higher coal price.

Exhibit 37: 2Q21E preview

	2Q20	1Q21	2Q21E		2020	2021E	Change	
	(THB m)	(THB m)	(THB m)	(q-q%)	(y-y%)	(THB m)	(THB m)	(y-y%)
Revenue	16,537	22,262	24,488	10.0	48.1	71,332	86,862	21.8
Operating costs	(14,316)	(16,593)	(18,003)	8.5	25.8	(62,045)	(54,903)	(11.5)
EBITDA	2,221	5,669	6,485	14.4	192.0	9,287	31,959	244.1
<i>EBITDA margin (%)</i>	13	25	26	<i>nm</i>	<i>nm</i>	13.0	36.8	<i>nm</i>
Deprn & amort.	(4,072)	(3,745)	(3,799)	1.4	(6.7)	(13,574)	(16,940)	24.8
EBIT	(1,851)	1,924	2,686	39.6	(245.1)	(4,287)	15,019	(450.3)
Interest expense	(1,462)	(1,355)	(1,485)	9.6	1.5	(5,619)	(6,195)	10.2
Interest & invt inc	(747)	253	400	58.1	(153.5)	299	280	(6.2)
Associates' contrib	995	1,378	1,598	16.0	60.6	4,239	5,781	36.4
Exceptionals	(323)	1,508	(623)	<i>nm</i>	<i>nm</i>	5,070	438	(91.4)
Pretax profit	(3,389)	3,708	2,576	(30.5)	(176.0)	(300)	15,323	(5,212.5)
Tax	1,075	(1,401)	(656)	(53.2)	(161.0)	(269)	(2,672)	891.5
<i>Tax rate (%)</i>	32	38	25	<i>nm</i>	<i>nm</i>	(90)	17	<i>nm</i>
Minority interests	(201)	(772)	(488)	(36.8)	142.9	(1,217)	(3,746)	207.8
Net profit	(2,514)	1,535	1,432	(6.7)	(157.0)	(1,786)	8,905	(598.5)
Non-recurring	(1,606)	868	(626)	(172.2)	(61.0)	1,471	(366)	(124.9)
Core net profit	(908)	668	2,058	208.3	(326.6)	(3,257)	9,271	(384.6)
EPS (THB)	(0.49)	0.30	0.28	(6.7)	(157.0)	(0.35)	1.62	(560.2)
Core EPS (THB)	(0.18)	0.13	0.40	208.3	(326.6)	(0.64)	1.69	(362.7)

Sources: BANPU; FSSIA estimates

EPS and TP revisions

We revise down our EPS forecasts for 2021-23 by 1.9-10.7% to reflect our changes in the number of shares outstanding to incorporate the higher number of shares from the RO, Banpu-W4, and BANPU-W5. We maintain our net profit forecasts for 2021-23, as we think the net profit growth will accelerate in 2H21 onward to reflect the higher coal and gas prices.

Exhibit 38: Key changes in assumptions

(THB b)	Current			Previous			Change (%)		
	2021E	2022E	2023E	2021E	2022E	2023E	2021E	2022E	2023E
Revenue	86,862	79,150	80,277	86,862	79,150	80,277	-	-	-
Gross profit	48,716	45,885	48,913	48,716	45,885	48,913	-	-	-
Operating profit	15,019	10,279	13,063	15,019	10,279	13,063	-	-	-
Net profit	9,271	8,368	8,931	9,271	8,368	8,931	-	-	-
EPS (THB/shr)	1.62	1.11	0.96	1.65	1.20	1.08	(1.9)	(7.4)	(10.7)
Key assumptions									
Coal sales volume (mtpa)	33.5	34.0	34.0	33.5	34.0	34.0	-	-	-
Newcastle coal price (USD/t)	90.0	75.0	70.0	90.0	75.0	70.0	-	-	-
ASP for coal (USD/t)	73.2	61.0	65.0	73.2	61.0	65.0	-	-	-
Total cost - Indonesia (USD/t)	60.5	57.9	57.5	60.5	57.9	57.5	-	-	-
Total cost - Australia (USD/t)	55.0	55.0	55.0	55.0	55.0	55.0	-	-	-

Source: FSSIA estimates

While we maintain our net profit forecasts for BANPU, we upgrade our call to BUY from Hold and lower our SoTP TP from THB16 to THB15.9 to reflect the increase in shares outstanding from the RO in 2021. We believe BANPU's share price has already priced in the negative impact of the capital increase announcement – dropping 10-20% from its closing price of THB15.6 on 30 June 2021. We think the EPS dilution impact and share price decline are not fully justified by the visible net profit growth from the sustainably higher coal and gas prices and its secured organic and inorganic projects, particularly for the potential M&A that BANPU could pursue via its growth strategy to diversify into non-coal businesses.

Exhibit 39: SoTP valuation

BANPU's valuation breakdown	(THB/share)	
ITMG (65%) (A)	6.7	DCF 9% WACC, terminal growth is zero for mines
China coal	3.2	DCF 9% WACC, terminal growth is zero for mines
Australian coal (Centennial)	7.7	DCF 9% WACC, terminal growth is zero for mines
Net value of non-ITMG coal (B)	17.6	
Value of power business		
BLCP	2.8	DCF 7.1% WACC, terminal growth is zero at the end of PPA
China power	2.9	DCF 7.1% WACC, terminal growth is zero at the end of PPA
Hongsa	5.0	DCF 7.1% WACC, terminal growth is zero at the end of PPA
SLG	1.6	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)	2.9	DCF 7.1% WACC, terminal growth is zero at the end of PPA
Net value of power (C)	16.5	
Net value of shale gas (D)	4.5	DCF 7.1% WACC, terminal growth is zero at the end of PPA
BANPU's net debt	(22.6)	At end-FY21E
Net value of BANPU (A+B+C+D)	15.9	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	86,862	79,150	80,277
Cost of goods sold	(63,952)	(50,626)	(38,146)	(33,265)	(31,364)
Gross profit	21,766	20,706	48,716	45,885	48,913
Other operating income	-	-	-	-	-
Operating costs	(13,810)	(11,419)	(16,757)	(15,233)	(15,477)
Operating EBITDA	7,955	9,287	31,959	30,652	33,436
Depreciation	(10,761)	(13,543)	(16,574)	(20,007)	(20,007)
Goodwill amortisation	(195)	(31)	(366)	(366)	(366)
Operating EBIT	(3,000)	(4,287)	15,019	10,279	13,063
Net financing costs	(8,393)	(2,778)	(5,992)	(5,984)	(6,006)
Associates	6,444	4,239	5,781	6,068	5,427
Recurring non-operating income	11,416	5,264	6,296	6,854	6,111
Non-recurring items	3,697	1,502	0	0	0
Profit before tax	3,720	(300)	15,323	11,149	13,168
Tax	(2,368)	(269)	(2,672)	(1,423)	(2,167)
Profit after tax	1,352	(569)	12,651	9,727	11,000
Minority interests	(1,905)	(1,217)	(3,746)	(1,724)	(2,435)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	(553)	(1,786)	8,905	8,002	8,565
Non-recurring items & goodwill (net)	(3,697)	(1,502)	0	0	0
Recurring net profit	(4,054)	(3,257)	9,271	8,368	8,931
Per share (THB)					
Recurring EPS *	(0.79)	(0.64)	1.69	1.16	1.01
Reported EPS	(0.11)	(0.35)	1.62	1.11	0.96
DPS	0.60	0.50	0.78	0.43	0.42
Diluted shares (used to calculate per share data)	5,162	5,075	5,497	7,189	8,881
Growth					
Revenue (%)	(24.0)	(16.8)	21.8	(8.9)	1.4
Operating EBITDA (%)	(71.0)	16.7	244.1	(4.1)	9.1
Operating EBIT (%)	nm	nm	nm	(31.6)	27.1
Recurring EPS (%)	nm	nm	nm	(31.0)	(13.6)
Reported EPS (%)	nm	nm	nm	(31.3)	(13.4)
Operating performance					
Gross margin inc. depreciation (%)	12.8	10.0	37.0	32.7	36.0
Gross margin of key business (%)	25.6	20.1	46.4	42.0	45.3
Operating EBITDA margin (%)	9.3	13.0	36.8	38.7	41.6
Operating EBIT margin (%)	(3.5)	(6.0)	17.3	13.0	16.3
Net margin (%)	(4.7)	(4.6)	10.7	10.6	11.1
Effective tax rate (%)	20.0	20.0	28.0	28.0	28.0
Dividend payout on recurring profit (%)	(76.4)	(77.9)	46.3	37.3	41.3
Interest cover (X)	1.0	0.4	3.6	2.9	3.3
Inventory days	24.6	24.5	27.9	28.7	28.8
Debtor days	43.1	38.1	37.3	45.0	42.4
Creditor days	15.9	13.8	22.2	27.4	27.9
Operating ROIC (%)	(1.6)	(10.6)	13.8	9.3	10.9
ROIC (%)	1.4	0.8	7.4	6.0	6.0
ROE (%)	(5.2)	(4.8)	13.2	9.8	8.7
ROA (%)	0.3	1.2	6.4	5.3	5.4
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
Coal	30,346	39,086	40,308	39,086	37,865
Others	55,372	32,245	46,554	40,064	42,412

Sources: Banpu; FSSIA estimates

Financial Statements

Banpu

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Recurring net profit	(4,054)	(3,257)	9,271	8,368	8,931
Depreciation	10,761	13,543	16,574	20,007	20,007
Associates & minorities	(6,444)	(4,239)	(5,781)	(6,068)	(5,427)
Other non-cash items	(544)	1,302	4,517	4,508	4,530
Change in working capital	5,207	1,403	(1,916)	1,083	(133)
Cash flow from operations	4,925	8,753	22,664	27,899	27,908
Capex - maintenance	-	-	-	-	-
Capex - new investment	(11,578)	(22,372)	(27,243)	(24,824)	(25,178)
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)	(26,575)	(24,157)	(24,510)
Dividends paid	(3,097)	(2,864)	(3,268)	(3,804)	(3,357)
Equity finance	0	0	0	0	0
Debt finance	8,531	28,455	6,700	(1,200)	2,500
Other financing cash flows	(3,117)	(7,087)	(2,535)	(4,701)	(718)
Cash flow from financing	2,317	18,505	897	(9,705)	(1,575)
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	(3,014)	(5,962)	1,823
Free cash flow to firm (FCFF)	(66.87)	(7,332.57)	2,283.90	10,081.00	9,761.79
Free cash flow to equity (FCFE)	(478.41)	8,416.89	253.84	(2,158.90)	5,180.22

Per share (THB)

FCFF per share	(0.01)	(1.44)	0.45	1.99	1.92
FCFE per share	(0.09)	1.66	0.05	(0.43)	1.02
Recurring cash flow per share	(0.05)	1.45	4.47	3.73	3.16

Balance Sheet (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Tangible fixed assets (gross)	93,339	112,066	139,309	164,133	189,311
Less: Accumulated depreciation	(34,543)	(34,543)	(51,117)	(71,124)	(94,427)
Tangible fixed assets (net)	58,796	77,523	88,192	93,010	94,884
Intangible fixed assets (net)	460	94	94	94	94
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	49,104	50,761	51,872	53,270	54,027
Cash & equivalents	16,388	21,941	18,927	12,965	14,788
A/C receivable	7,415	7,482	10,250	9,261	9,392
Inventories	3,759	3,045	2,780	2,454	2,489
Other current assets	13,533	14,833	14,833	14,833	14,833
Current assets	41,095	47,301	46,789	39,512	41,502
Other assets	108,134	105,969	93,783	106,663	122,713
Total assets	257,589	281,648	280,731	292,548	313,221
Common equity	72,195	62,344	78,130	92,478	112,064
Minorities etc.	18,286	22,211	25,958	27,682	30,117
Total shareholders' equity	90,481	84,555	104,088	120,160	142,181
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	2,610	2,379	2,413
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	37,850	37,618	37,652
Total liabilities and shareholders' equity	257,589	281,648	283,268	297,623	321,890
Net working capital	7,597	8,096	10,012	8,929	9,062
Invested capital	224,090	242,442	243,953	261,965	280,780

* Includes convertibles and preferred stock which is being treated as debt

Per share (THB)

Book value per share	13.99	12.29	14.21	12.86	12.62
Tangible book value per share	13.90	12.27	14.19	12.85	12.61

Financial strength

Net debt/equity (%)	129.7	165.3	119.6	107.5	91.3
Net debt/total assets (%)	45.5	49.6	44.3	44.2	41.4
Current ratio (x)	0.9	0.7	1.2	1.1	1.1
CF interest cover (x)	2.3	12.1	5.6	4.8	6.1

Valuation	2019	2020	2021E	2022E	2023E
Recurring P/E (x) *	(16.9)	(20.7)	7.9	11.4	13.2
Recurring P/E @ target price (x) *	(20.2)	(24.8)	9.4	13.7	15.8
Reported P/E (x)	(124.2)	(37.8)	8.2	11.9	13.8
Dividend yield (%)	4.5	3.8	5.9	3.3	3.1
Price/book (x)	1.0	1.1	0.9	1.0	1.1
Price/tangible book (x)	1.0	1.1	0.9	1.0	1.1
EV/EBITDA (x) **	25.7	24.7	7.0	8.2	8.3
EV/EBITDA @ target price (x) **	27.4	26.1	7.4	8.8	9.0
EV/invested capital (x)	0.9	0.9	0.9	1.0	1.0

* 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	ICI	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	PAP	PCSGH	PDJ	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	TMB	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	AMANAHA	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	WIJK	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	TIPIP	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	AMANAHA	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	TMB	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	WIJK	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 the 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 FSS International Investment Advisory Securities Co., Ltd

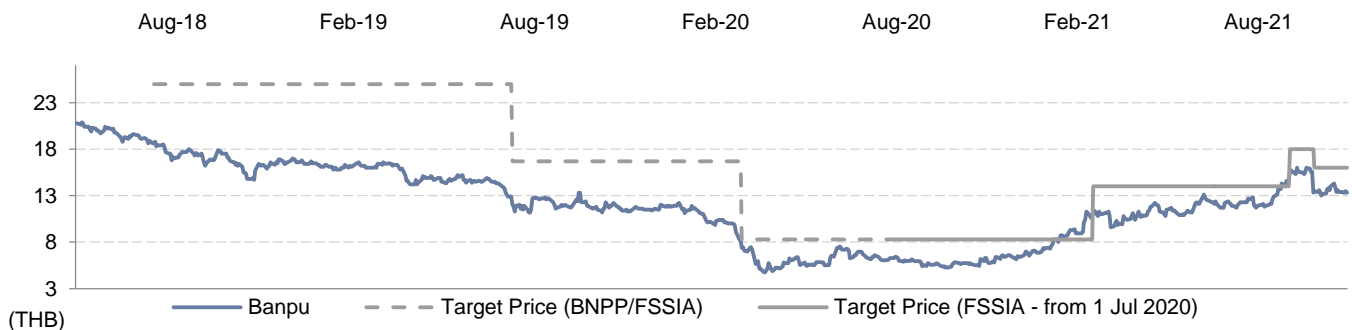
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

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History of change in investment rating and/or target price

Banpu (BANPU TB)



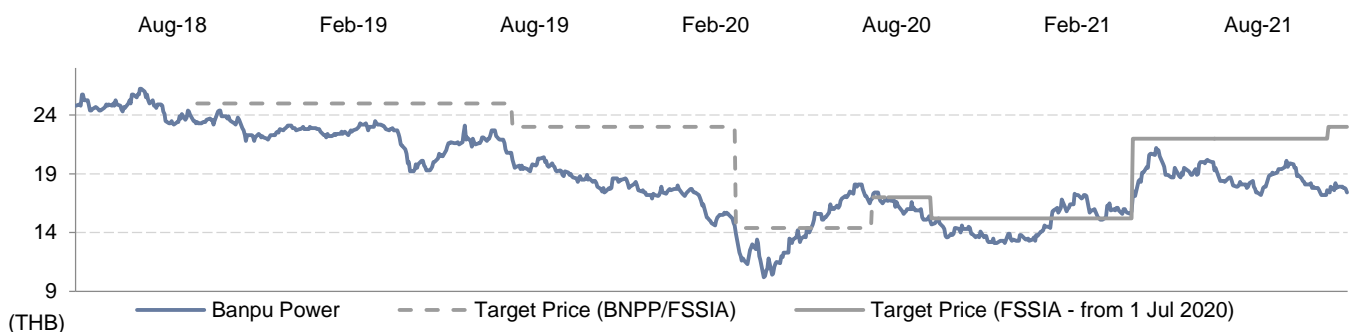
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	25.00	09-Oct-2020	BUY	8.30	10-Jun-2021	BUY	18.00
13-Aug-2019	BUY	16.70	23-Dec-2020	BUY	14.00	01-Jul-2021	HOLD	16.00
26-Feb-2020	HOLD	8.30	14-Jan-2021	BUY	14.00			
26-Feb-2020	HOLD	8.30	24-Feb-2021	BUY	14.00			

Suwat Sinsadok started covering this stock from 09-Oct-2018

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
15-Nov-2018	HOLD	25.00	17-Jun-2020	HOLD	17.00	23-Feb-2021	BUY	22.00
13-Aug-2019	HOLD	23.00	06-Aug-2020	HOLD	15.20	13-Jul-2021	BUY	23.00
21-Feb-2020	HOLD	14.40	16-Oct-2020	HOLD	15.20			
17-Jun-2020	HOLD	17.00	26-Jan-2021	BUY	22.00			

Suwat Sinsadok started covering this stock from 15-Nov-2018

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Banpu	BANPU TB	THB 13.30	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. We see upside risks from higher coal prices, higher gas prices and lower costs.
Banpu Power	BPP TB	THB 17.40	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 30-Jul-2021 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.