

13 JULY 2021

THAILAND / UTILITIES - CONVENTIONAL

## BANPU POWER BPP TB

BUY

UNCHANGED

TARGET PRICE	THB23.00
CLOSE	THB17.20
UP/DOWNSIDE	+33.7%
PRIOR TP	THB22.00
CHANGE IN TP	+4.5%
TP vs CONSENSUS	+11.7%

## เปลี่ยนให้เป็นมิตรต่อสิ่งแวดล้อมมากขึ้น

## แปลงให้เป็นหุ้นที่เป็นมิตรต่อสิ่งแวดล้อมมากขึ้น

ในระหว่างการประชุมทางโทรศัพท์กับ FSSIA ผู้บริหารชี้แจงถึง 3 กลยุทธ์สำคัญที่จะเปลี่ยน BPP จากผู้ให้บริการสาธารณูปโภคที่ใช้ถ่านหินเป็นหลักเป็นบริษัทที่เป็นมิตรต่อสิ่งแวดล้อมมากยิ่งขึ้นภายในปี 2025 ประการแรก BPP วางเป้าเพิ่มกำลังการผลิตจากพลังงานหมุนเวียนจาก 347MW ในปี 2020 เป็น 800MW ในปี 2025 และจากเทคโนโลยีประสิทธิภาพสูง มลพิษต่ำ (HELE) จาก 396MW ในปี 2020 เป็น 2.5GW ในปี 2025 ประการที่สอง กำลังการผลิตไฟฟ้า HELE จะเป็นก้าวแรกของ BPP เพื่อให้บรรลุเป้าหมายในการเป็นมิตรต่อสิ่งแวดล้อมมากยิ่งขึ้นผ่านการลงทุนที่มีความเสี่ยงต่ำที่ให้กระแสเงินสดที่ โดยใช้เทคโนโลยีมลพิษต่ำในช่วงเปลี่ยนผ่าน ประการที่สาม BPP ผ่านกิจการร่วมค้า (JV) กับ Banpu (BANPU TB, HOLD, TP THB16) และหุ้น 50% ใน Banpu NEXT (NEXT, not listed) จะเพิ่มการเติบโตของกำลังการผลิตจากโรงไฟฟ้าถ่านหินในสหรัฐฯ และโรงไฟฟ้า LNG ในเวียดนาม

## กำไรสุทธิจากธุรกิจที่เป็นมิตรต่อสิ่งแวดล้อมมากขึ้นแลกกับการลดของกำไร

## สุทธิจากธุรกิจที่เป็นอันตรายต่อสิ่งแวดล้อม

เราคาดว่า BPP จะค่อย ๆ ลดกำไรสุทธิจากโรงไฟฟ้าถ่านหินจาก 87% ของกำไรรวมในปี 2020 ลงเหลือ 76% ในปี 2023 กำลังการผลิตใหม่ที่จะเพิ่มสัดส่วนโรงไฟฟ้าที่ไม่ใช้ถ่านหินของ BPP ส่วนมากจะมาจาก 1) โรงไฟฟ้า HELE ซึ่งรวมถึง Nakoso (IGCC); 2) กำลังการผลิตไฟฟ้าพลังงานหมุนเวียนในออสเตรเลียและเวียดนาม; 3) โรงไฟฟ้าที่ใช้ก๊าซและ LNG ในสหรัฐฯ และเวียดนาม; และ 4) ธุรกิจยานยนต์ไฟฟ้า (EV) และธุรกิจอื่นที่เกี่ยวข้องประกอบด้วยโรงงานผลิตแบตเตอรี่และ EV

## การขยายกำลังการผลิต: จากเป็นอันตรายต่อสิ่งแวดล้อมเป็นสร้างมลพิษต่ำ

## (HELE) และกลายมาเป็นมิตรต่อสิ่งแวดล้อม (พลังงานหมุนเวียน)

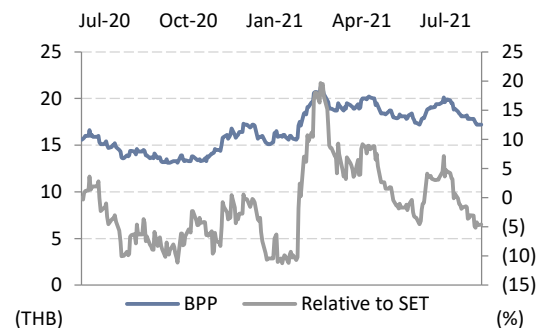
เราเชื่อว่ายุทธศาสตร์ของ BPP ในการบรรลุเป้ากำลังการผลิต 3.3GW โดยการเปลี่ยนจากเทคโนโลยีที่เป็นอันตรายต่อสิ่งแวดล้อมเป็นสร้างมลพิษต่ำจนกลายมาเป็นมิตรต่อสิ่งแวดล้อมจนได้กำลังการผลิตรวม 5.3GW ในปี 2025 เป็นกลยุทธ์สร้างการเติบโตที่ดีในการบังคับกิจการและโรงไฟฟ้าให้ปล่อยก๊าซเรือนกระจก (GHG) น้อยลงในอนาคต โดยปกตินักลงทุนจะมอง BPP ว่าเป็นหุ้นสาธารณูปโภคที่ใช้ถ่านหินเป็นหลักเนื่องจากส่วนแบ่งกำไรส่วนมากมาจากโรงไฟฟ้าถ่านหินขนาดใหญ่ 2 แห่ง กล่าวคือ BLCP (กำลังการผลิต 1.4GW) และ Hongsia (HPC; 1.8GW) ในปี 2021-25 BPP มีแนวโน้มซื้อกิจการโรงไฟฟ้า HELE เข้ามาในพอร์ตมากยิ่งขึ้น ซึ่งจะช่วยให้บริษัท ลดการพึ่งพากรจากโรงไฟฟ้าถ่านหินในขณะที่พยายามบรรลุเป้าหมายกำลังการผลิตที่ 5.3GW ภายในปี 2025

## คงคำแนะนำซื้อหลังปรับราคาเป้าหมายเป็น 23 บาท

เราคงคำแนะนำซื้อหลังปรับราคาเป้าหมายจาก 22 เป็น 23 บาท (SOTP) เพื่อรวมมูลค่า 0.6 บาท/หุ้นจาก Nakoso และ 0.1 บาท/หุ้นจากโรงไฟฟ้าพลังแสงอาทิตย์ขนาด 167MW ในออสเตรเลีย รวมถึงกำไรต่อหุ้นที่เพิ่มขึ้นจากสมมติฐานอัตราการใช้กำลังการผลิตที่สูงขึ้นของ HPC และ BLCP

## KEY STOCK DATA

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	6,152	11,038	11,285	11,257
Net profit	3,702	5,413	6,114	6,246
EPS (THB)	1.21	1.77	2.00	2.05
vs Consensus (%)	-	34.8	31.9	24.4
EBITDA	1,299	1,676	2,016	3,013
Core net profit	3,783	5,413	6,114	6,246
Core EPS (THB)	1.24	1.77	2.00	2.05
Chg. In EPS est. (%)	-	19.9	29.4	47.4
EPS growth (%)	26.0	43.1	13.0	2.1
Core P/E (x)	13.9	9.7	8.6	8.4
Dividend yield (%)	3.8	4.7	4.7	4.7
EV/EBITDA (x)	43.9	33.2	25.4	15.4
Price/book (x)	1.3	1.2	1.1	1.0
Net debt/Equity (%)	8.9	4.7	(5.1)	(13.9)
ROE (%)	9.4	12.7	13.3	12.5



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(13.6)	(6.5)	6.2
Relative to country (%)	(8.7)	(7.0)	(7.5)
Mkt cap (USD m)	1,604		
3m avg. daily turnover (USD m)	3.7		
Free float (%)	21		
Major shareholder	BANPU Plc (79%)		
12m high/low (THB)	21.60/13.00		
Issued shares (m)	3,051.02		

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 13 กรกฎาคม 2021

## Investment thesis

BPP has secured an effective capacity of 2.4GW, of which 1.9GW is in operation and the remaining 0.5GW is under development. Most of the operating and under-development capacity is in the form of coal-fired power plants. BPP also has some renewable capacity from solar power plants in China and Japan, with a total capacity of almost 200MW. BPP plans to increase its renewable capacity from 0.2GW currently to 0.8GW by 2025, representing 15% of its total target capacity of 5.3GW in 2025.

We think BPP's limited core earnings growth potential from its two power assets – HPC and BLCP, which are already running at high utilisation rates, according to management – should be offset by the earnings growth from the SLG power plant in China and its battery and EV businesses.

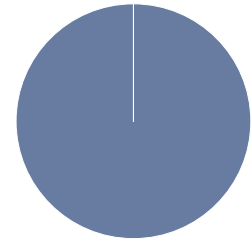
## Company profile

Banpu Power is a holding company investing in electricity generating businesses. It has major coal-fired and solar farm power assets in Thailand, Laos, China and Japan.

[www.banpupower.com](http://www.banpupower.com)

## Principal activities (revenue, 2020)

■ Power - 100.0 %

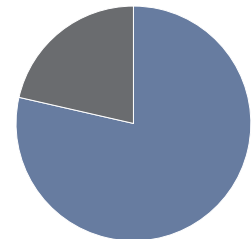


Source: Banpu Power

## Major shareholders

■ BANPU Plc - 78.6 %

■ Others - 21.4 %



Source: Banpu Power

## Catalysts

Higher utilisation rates of power plants and rising demand for electricity in Thailand and China are key potential growth drivers.

## Risks to our call

Downside risks to our SOTP valuation are the start-up delays of its new projects and government intervention in the electricity tariff.

## Event calendar

Date	Event
Jul 2021	2Q21 results announcement

## Key assumptions

	2021E	2022E	2023E
Utilisation rate (%)	94	95	95
Oil price (USD/bbl)	65	60	60
Equity capacity (MW)	2,713	2,817	2,886

Source: FSSIA estimates

## Earnings sensitivity

- For every 1% increase in coal price, we estimate 2021 earnings would decline 2.5%, and vice versa, all else being equal.
- For every 1% increase in interest rate, we estimate 2021 earnings would decline 1.3%, and vice versa, all else being equal.

Source: FSSIA estimates



## From a black to green transformation

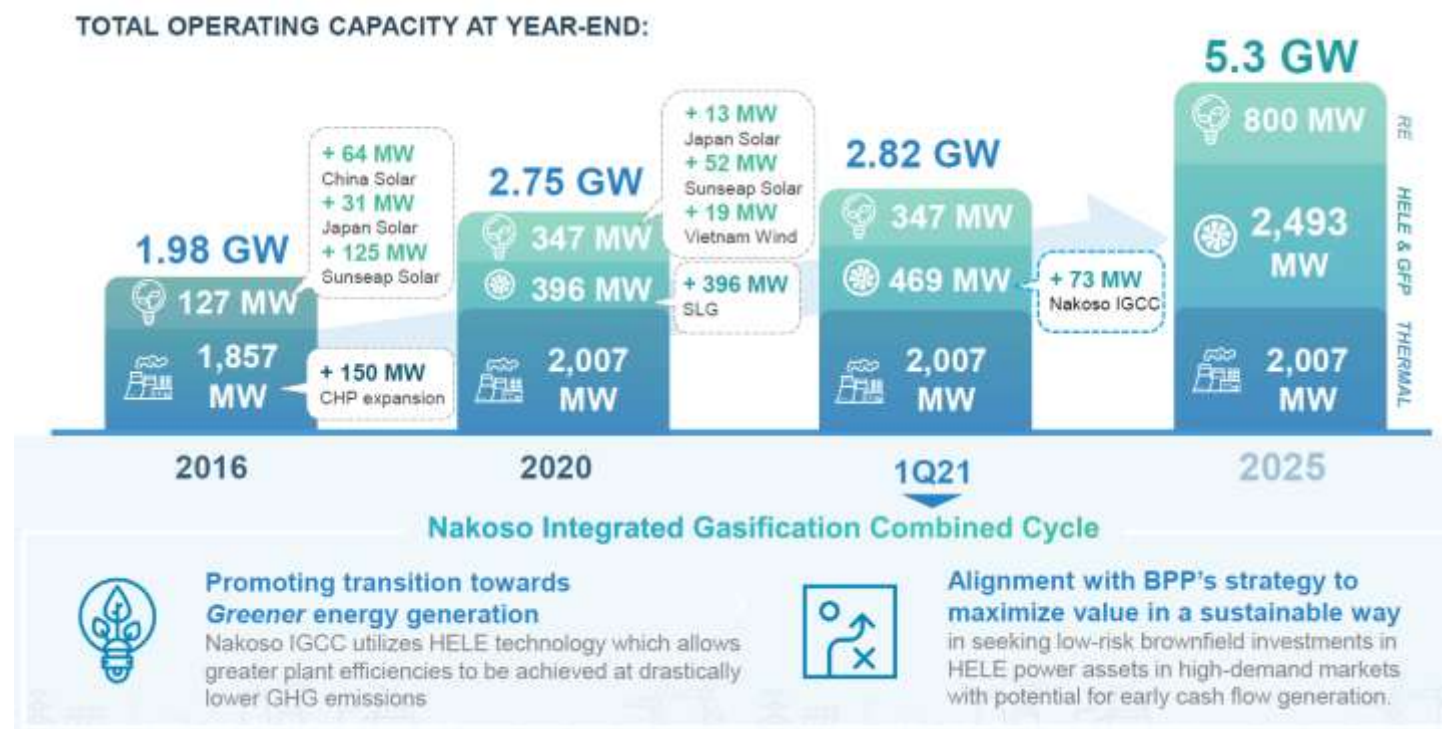
During our FSSIA conference call, management clarified three key strategies to transform BPP from a coal-dominated utilities provider into a “greener and smarter” company by 2025.

First, BPP aims to increase its capacity from renewable energy from 347MW in 2020 to 800MW in 2025 and from HELE technology from 396MW in 2020 to 2.5GW in 2025.

Second, HELE power capacity, including the recently acquired Nakoso integrated gasification combined cycle (IGCC)-based, coal-to-gas power plant, will be the first step in BPP’s transition to achieve its greener and smarter goal via a low-risk, stable cash flow investment with low emissions as a transitional technology. HELE is dubbed ‘grey’ technology vs ‘black’ for coal-fired power plants and ‘green’ technology for renewable energy.

Third, BPP, via its JV with BANPU and its 50% stake in NEXT, will seek capacity growth from gas-fired power plants in the US market and an LNG-to-power plant in the Vietnam market, leveraging BANPU’s shale gas production bases in the Marcellus and Barnett areas in the US and its HPC coal-fired power plant in Laos.

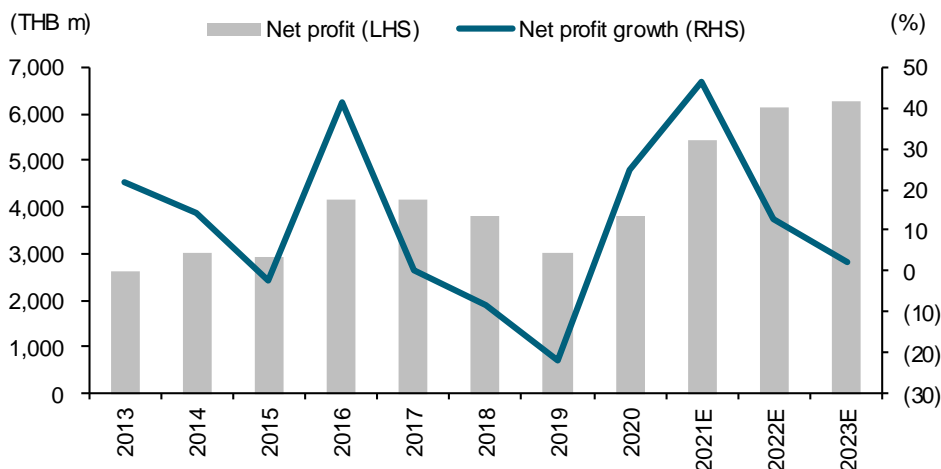
Exhibit 1: “Greener and smarter” transformation strategy via increases in renewable and HELE capacity



Source: BPP

As a result, we project that BPP's net profit growth will now be enhanced via both organic growth, including the Shan Xi Lu Guang (SLG) coal-fired power plant in China, and M&A, to boost its net profit growth from THB3.7b in 2020 to THB5.5b in 2022.

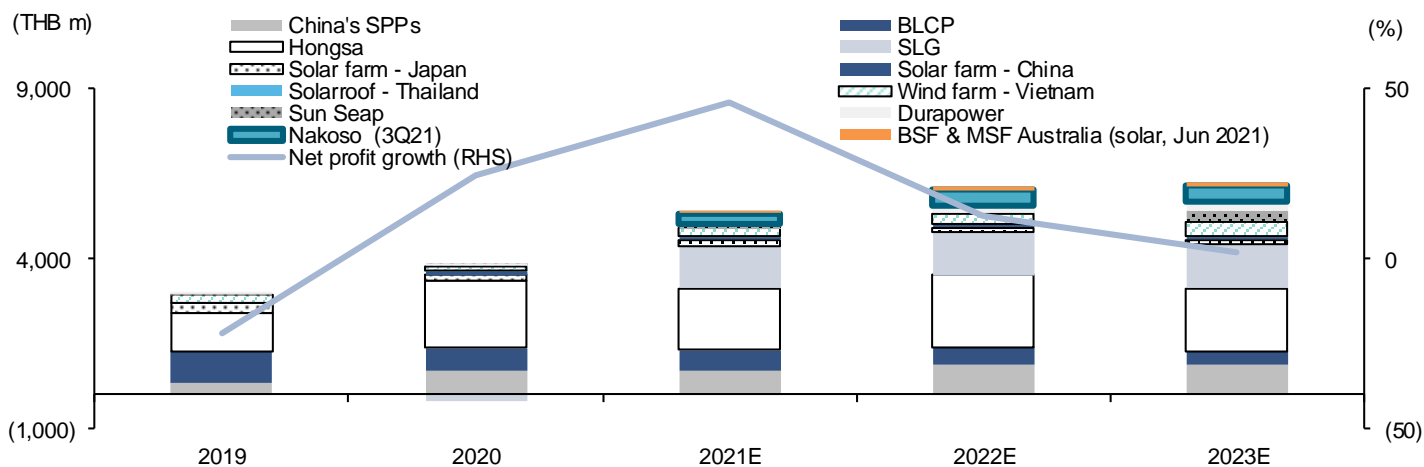
**Exhibit 2: Net profit and net profit growth**



Sources: BPP; FSSIA estimates

While we project BPP's net profit in 2023 to decline y-y to THB4.9b due to the structurally lower net profit contributions from its two coal-fired power plants, BLCP and HPC, we think it is highly likely that BPP will add new capacity growth and profits into its portfolio in 2021-22. This is based on its strong balance sheet and evident growth strategy to secure new capacity from gas-fired, HELE, and renewable power plants in Thailand, Australia, Vietnam, and the US market.

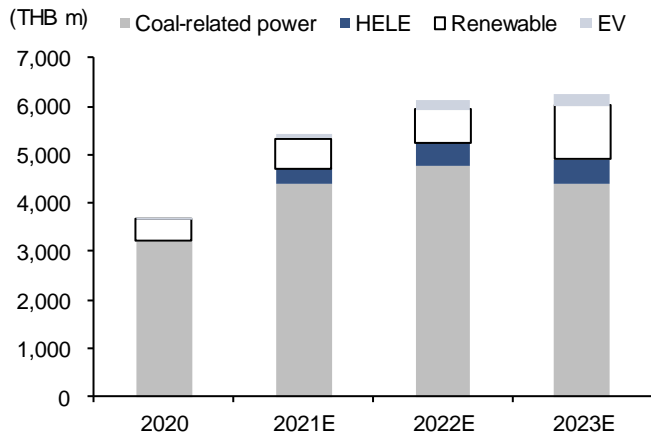
**Exhibit 3: Net profit breakdown and net profit growth**



Sources: BPP; FSSIA estimates

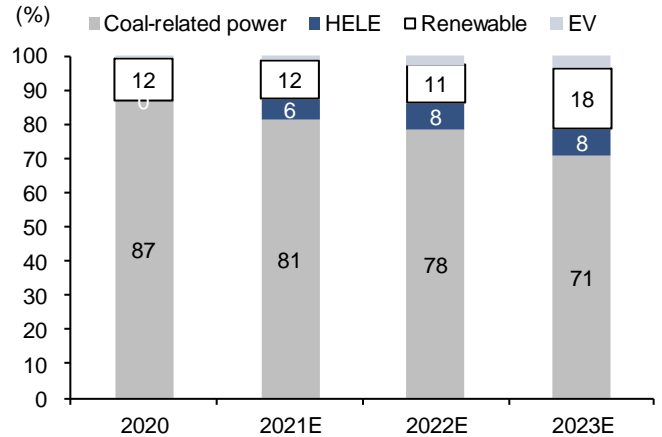
**From black to grey to green energy.** We project that BPP will gradually lower its net profit contributions from coal-fired power plants, mainly from BLCP, HPC, and SLG, from 87% of total earnings in 2020 down to 76% in 2023. The major new capacity to increase BPP's non-coal power plant proportion would come from 1) HELE power plants, including Nakoso (IGCC); 2) renewable capacity in Australia and Vietnam; 3) the gas-fired LNG-to-power plants in the US and Vietnam; and 4) EV and EV-related ventures, including battery and EV manufacturing plants.

**Exhibit 4: Net profit breakdown**



Sources: BPP; FSSIA estimates

**Exhibit 5: Net profit breakdown (%)**

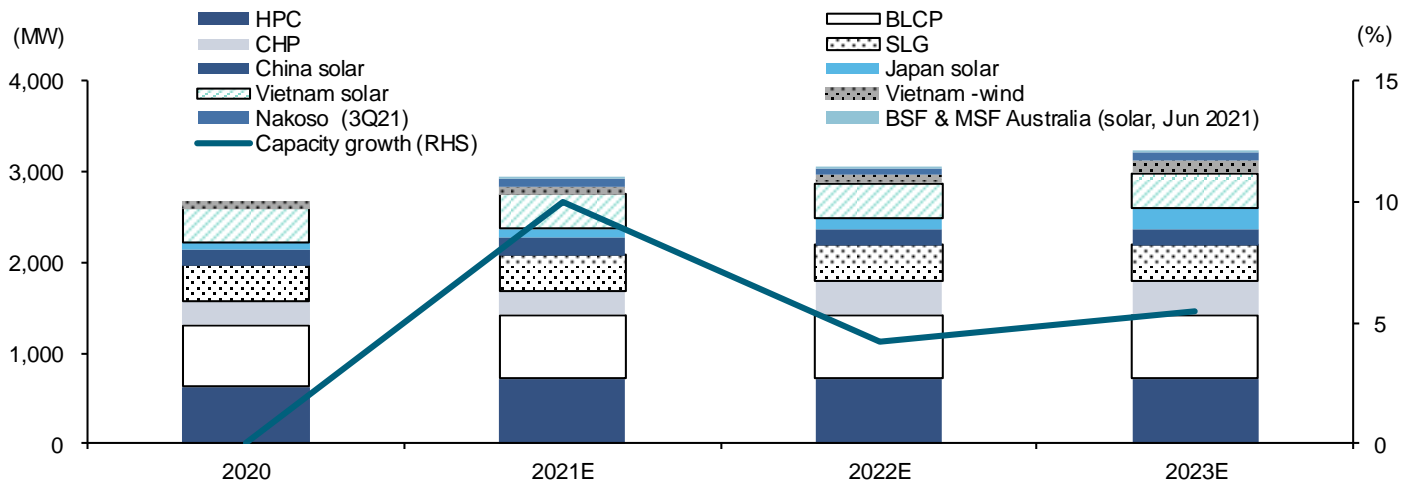


Sources: BPP; FSSIA estimates

**Becoming a “greener and smarter” power play**

We believe BPP’s strategic goal to achieve a 3.3GW capacity from ‘black’ via ‘grey’ to ‘green’ technology to reach a total capacity of 5.3GW in 2025, is a sound growth strategy to harness the future lower GHG emitting power plants and ventures. BPP has typically been perceived by the investment community as a key coal-based utilities play, given that its major earnings contributions come from two large-scale coal-fired power plants, BCLP (1.4GW capacity) and HPC (1.8GW).

**Exhibit 6: Equity capacity breakdown and capacity growth**

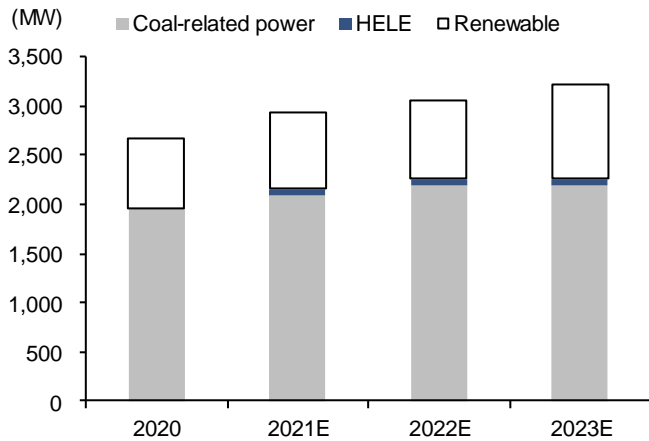


Sources: BPP; FSSIA estimates

However, due to the structural decline in availability payments, and hence the net profit contributions from BCLP and HPC, within the next five years, BPP plans to not only offset the net profit drops from BCLP and HPC but to also gradually shift away from coal-fired power plants to green renewable power plants, including solar and wind farms and the cleaner gas-fired power plants.

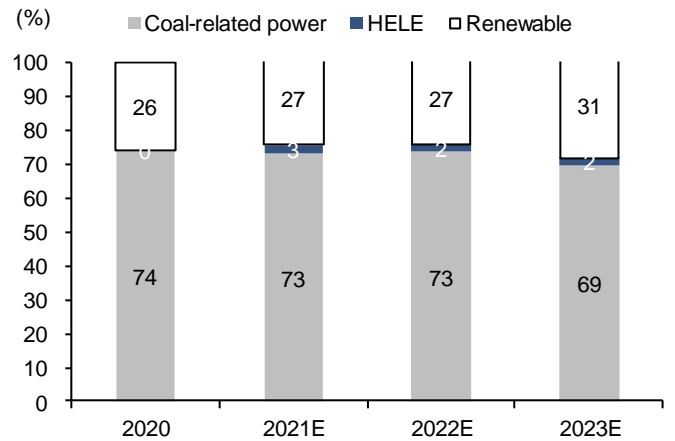
In order to maintain its cash flow and net profit growth momentum, BPP will employ HELE technology power plants as a key transitional growth driver to sustain its net profit while growing its renewable power plants, which normally have a smaller scale and lower EIRR and profitability than coal-fired and HELE power plants.

**Exhibit 7: Equity capacity breakdown**



Sources: BPP; FSSIA estimates

**Exhibit 8: Equity capacity breakdown (%)**



Sources: BPP; FSSIA estimates

**HELE is a transitional technology to transform from coal to renewables**

Management indicated that the acquisition of the Nakoso HELE-based power plant using IGCC technology, a coal-to-gas process, will be the first step toward BPP’s greener and smarter goal via a low-risk, stable cash flow investment with low emissions as a transitional technology.

**Exhibit 9: Nakoso uses IGCC technology for a greener (lower emission) and smarter (higher efficiency) power plant**

**BPP acquired 33.5% stake in NIMCO, which owns 40% of the Nakoso IGCC project**  
 Equivalent to an effective ownership of 13.4%  
 Safety measures and contingency plans for natural disasters factored in during plant design.

**Nakoso IGCC**

- Project term:** 25-year PPA
- Capacity:** 543 MW  
**Equity capacity:** 73 MW
- COD:** April 2021
- Acquisition price:** US\$80 M

**PROJECT HIGHLIGHTS**

- World’s largest Integrated Gasification Combine Cycle (IGCC) and the first large-scale commercial air-blown IGCC in Japan**
- Low-risk, stable cash flow investment**  
Aligning with BPP’s strategy in advanced technology investments in high-demand markets with early cash flow generation. This project has secured long-term PPA and fuel supply agreement.
- 25% lower CO<sub>2</sub> emissions than average industry CFPs**  
As combined technologies of CCGT and gasification enable IGCCs to generate more power per ton of coal with lower emissions.
- One of the best thermal technologies available**  
Achieving higher generation efficiency at 48% net efficiency due to improvement in combustion temperature.

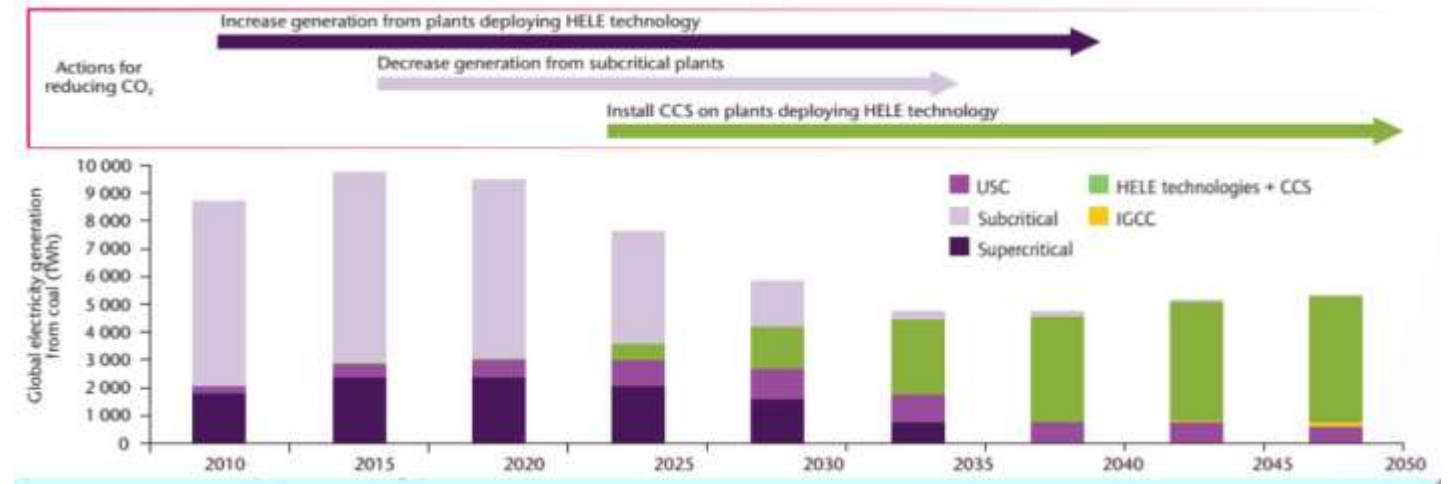
Year	PULVERIZED COAL FIRING (%)	Super critical (%)	Ultra-super critical (%)	IGCC (1200°C CCGT) (%)	IGCC (1400°C CCGT) (%)
1970	~35	-	-	-	-
1980	~38	38%	-	-	-
1990	~42	-	42%	-	-
2000	~42	-	-	42%	-
2010	~42	-	-	42%	-
2020	~48	-	-	-	48%
2030	~48	-	-	-	48%

Source: BPP

According to the International Energy Agency (IEA) Clean Coal Centre, of which BANPU is a member, coal-based power plants are projected to remain a key source of power globally in the next 10 years, given its cost competitiveness, the abundant coal supply, and the easy-to-operate power plant type.

However, given the high emissions from conventional coal-fired technologies for power plants, including subcritical and supercritical technologies, the IEA believes it is strategically essential to deploy the transitional HELE technology with lower emissions and higher operational efficiency to gradually replace the coal-fired technologies in an effort to move toward a green utilities industry.

**Exhibit 10: IEA HELE roadmap**



Source: [IEA Clean Coal Centre](#)

**What is HELE technology?** HELE stands for 'high efficiency, low emission' technologies that include ultra-supercritical (USC) and IGCC, which will have higher efficiencies of up to 49-50% vs only 35% efficiency for conventional coal-fired subcritical and supercritical technologies.

**Exhibit 11: Ongoing improvement to USC pulverised coal-fired power plants**

**Higher efficiency**  
(49-53% in the near to medium term)

**Lower conventional emissions**

**Emissions (mg/m<sup>3</sup>)**

Dust: 0.7

SO<sub>2</sub>: 15.1

NO<sub>x</sub>: 17.2

Sources: [IEA Clean Coal Centre](#)

**Exhibit 12: Efficiency, coal consumption, and CO2 emissions for advanced coal-based technologies**

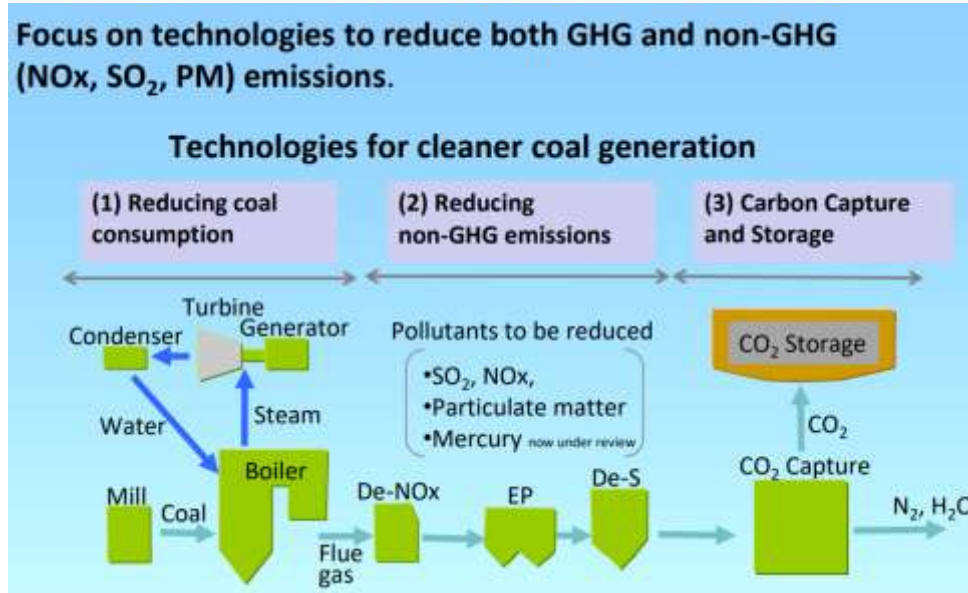
Technology	Net efficiency	House power rate %	Net coal consumption g/(kW-h)	CO <sub>2</sub> emissions (gross energy output) g/(kW-h)
Sub-critical	≤38.00%	4.5-5.5	323.25	798.59-807.32
Supercritical	≤42.00%	4-5	292.46	726.48-734.38
600°C class USC	≤45.00%	3.5-4.5	272.97	681.73-689.10
700°C class USC	45.00-50.00%	3	273.97-245.67	623.51-602.79
Pingshan 1350MW 600°C class USC (WGG3's new design)	49.80%	3.5	246.66	622.69
WGG3's 700°C USC	53.00%	3	231.76	588.21

Sources: [IEA Clean Coal Centre](#)



HELE also excels in its low emissions to effectively reduce GHG and non-GHG (NO<sub>x</sub>, SO<sub>2</sub>, PM) emissions, even using coal as a key energy source to generate heat. Hence, the IEA believes HELE technologies are a key step toward near-zero emissions from coal and will eventually enable the global utilities sector to transition from mostly black coal-based technology to a green renewable-based technology platform via the HELE transitional grey technology.

### Exhibit 13: Technologies for cleaner coal generation



Source: [IEA Clean Coal Centre](#)

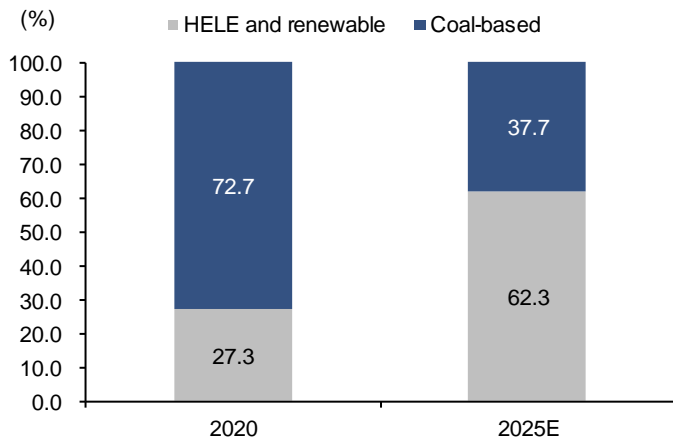
HELE technologies can also include fuel cell (FC) technology, which is starting to be applied to coal power plants to achieve zero emissions and high efficiency. As a result, in the next 10 years, the IEA expects to introduce HELE technology as a key transitional platform to gradually replace the subcritical and super subcritical coal-based technologies, in order to achieve a greener global utilities industry.

**BPP's strategy for HELE.** In 2021-25, BPP is likely to acquire more HELE-based power assets into its portfolio, enabling it to reduce its earnings from coal-based power plants toward its 5.3GW target in 2025.

According to management, IGCC HELE technology will have middle-of-the-road performance between gas-fired and coal-fired power plant technologies. This includes superior operational efficiency and lower emissions than coal-fired technologies but less efficiency and higher emissions than gas-fired power plants.

However, the investment cost for IGCC is higher than both gas-fired and coal-fired technologies at USD3m/MW vs USD1m/MW for gas-fired and USD2m/MW for coal-fired, making IGCC-based technology economically feasible only for certain markets with high electricity tariffs and a focus on greener technologies, such as Japan, South Korea, and Western markets.

**Exhibit 14: Capacity breakdown target (from 2.75GW in 2020 to 5.3GW in 2025E)**



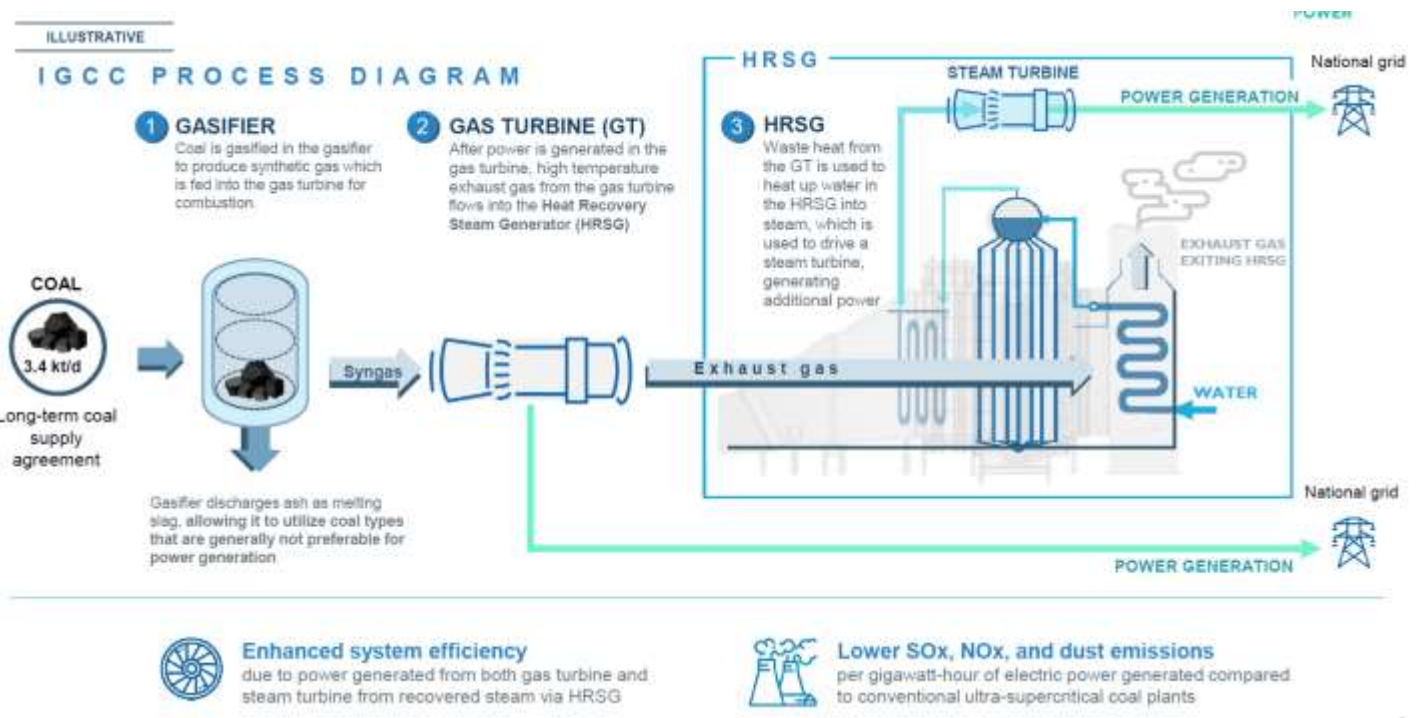
Source: BPP

**Exhibit 15: Key comparisons of gas, IGCC, and coal technologies for power plants**

	Gas	IGCC	Coal	Unit
Efficiency	60	49-50	35-40	%
Emissions (total)	0.40	0.60	0.80	kg/kWh
Investment cost	1.0	3.0	2.0	USD m

Sources: BPP; FSSIA estimates

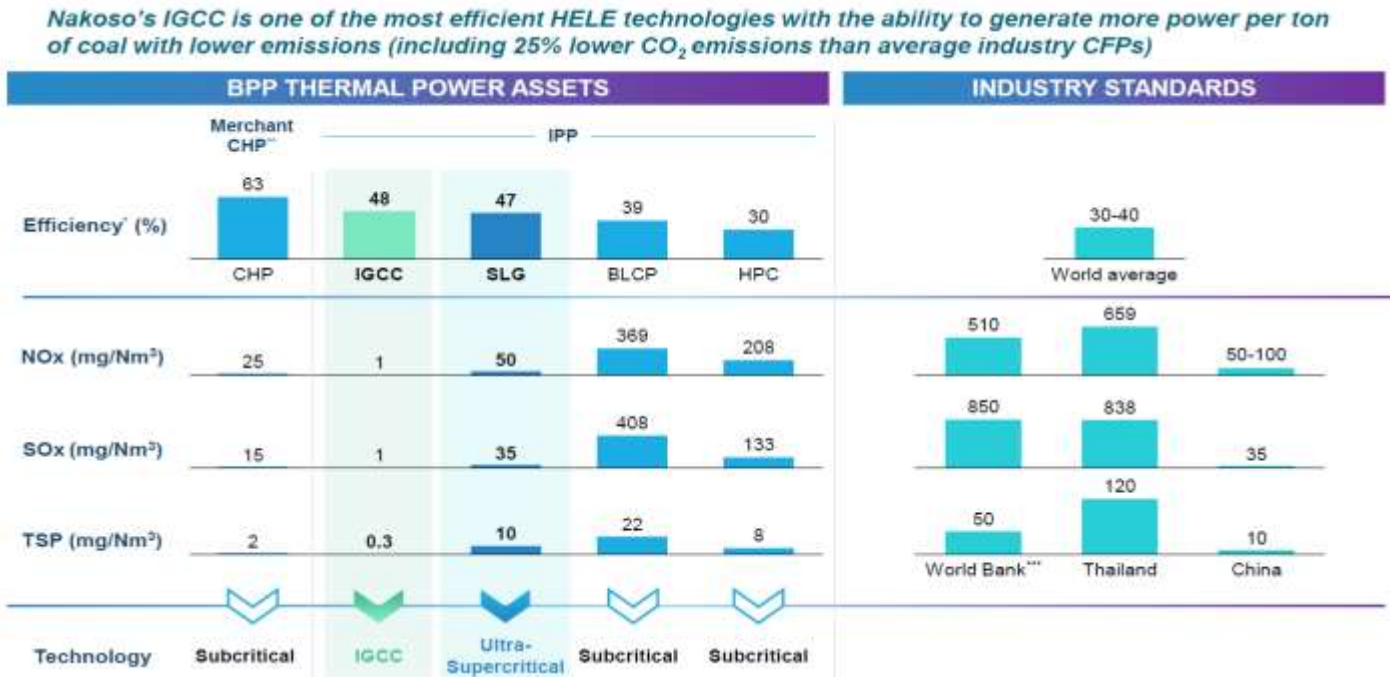
**Exhibit 16: IGCC HELE Nakoso power plant**



Source: BPP

For the five key power plants under BPP, the subcritical BLCP and HPC coal-fired power plants generate the highest emissions of NOx, SOx, and total small particles (TSP) compared to the USC-based SLG power plant, the CHP coal-fired small power plants in China, and the IGCC-based Nakoso power plant in Japan. Hence, we think BPP will gradually reduce its exposure to coal-fired power plants (BLCP, HPC, and CHP) and transition toward HELE-based power plants (SLG and IGCC Nakoso), starting in 2021 onward.

Exhibit 17: Efficiency and emissions comparison for BPP’s key power plants



Source: BPP

**Banpu NEXT and BPP’s energy technology growth roadmap**

BPP, via its JV with BANPU and its 50% stake in NEXT, will seek capacity growth for its gas-fired power plants in the US market and an LNG-to-power plant in the Vietnam market, leveraging BANPU’s shale gas production bases in the Marcellus and Barnett areas in the US and its HPC coal-fired power plant in Laos.

Based on BPP’s 1Q21 presentation, under BPP’s ‘Energy Technology’ group, the company plans to grow its capacities of 1) renewable energy, mainly solar rooftops and floating solar farms, from 249MW in 1Q21 to 500MW in 2025; 2) energy storage systems (ESS) from 1GWh in 1Q21 to 3GWh in 2025; and 3) e-mobility from 215 EVs in 1Q21 to 5,500 EVs in 2025. The e-mobility group has already been expanded to cover e-tuk tuks (EV tricycle), e-ferries, hybrid diesel-battery ships, and charging stations, and will further increase its products to cover most EV types by 2025.

Exhibit 18: Energy technology growth target in 2025



Source: BPP

Exhibit 19: Energy technology venture (1Q21)



Source: BPP

## EPS and target price revisions

We raise our EPS forecasts for 2021-23 by 19.9-44.2% to reflect 1) the incorporation of earnings from Nakoso in Japan and the solar farms in Australia; 2) the higher utilisation rates for HPC and BLCP based on management's guidance; and 3) our higher oil price assumptions by 20-30% that would result in a higher electricity tariff for renewable power plants.

### Exhibit 20: Key changes in assumptions and EPS forecasts

THB m	Current			Previous			Change (%)		
	2021E	2022E	2023E	2021E	2022E	2023E	2021E	2022E	2023E
Revenue	11,038	11,285	11,257	11,038	11,285	11,257	0.0	0.0	0.0
Gross profit	4,436	4,611	4,588	4,436	4,611	4,588	0.0	0.0	0.0
Operating profit	4,436	4,611	4,588	4,436	4,611	4,257	0.0	0.0	7.8
Net profit	5,413	6,114	6,246	4,516	4,726	4,328	19.9	29.4	44.3
EPS (THB/shr)	1.8	2.0	2.0	1.5	1.5	1.4	19.9	29.4	44.2
<b>Key assumptions</b>									
Utilisation rate (%)	94	95	95	92	94	94	2.2	1.1	1.1
Oil price (USD/bbl)	65	60	60	50	50	50	30.0	20.0	20.0
Equity capacity (MW)	2,713	2,817	2,886	2,624	2,624	2,624	3.4	7.3	10.0

Note: Change of items in percentage terms are represented in ppt change

Sources: BPP; FSSIA estimates

We maintain BUY and raise our SOTP-based TP from THB22 to THB23 to include a THB0.6/share value for Nakoso and THB0.1/share for the 167MW solar farms in Australia, plus our EPS increase due to our higher utilisation rate assumptions for HPC and BLCP.

### Exhibit 21: SOTP valuation

Cost of equity assumptions		(%)	Cost of debt assumptions		(%)
Risk-free rate		2.3	Pretax cost of debt		5.5
Market risk premium		8.5	Marginal tax rate		20.0
Stock beta		1.0			
Cost of equity, Ke		10.8	Net cost of debt, Kd		4.4
Weight applied		40.0	Weight applied		60.0
WACC (%)		7.0			
DCF valuation estimate	THB m	THB/share	Comments		
BLCP	3,972	1.3	WACC 7.0%, no terminal growth value		
Hongsa (HPC)	18,063	5.9	WACC 7.0%, no terminal growth value		
Zhengding	4,211	1.4	WACC 8.5%, no terminal growth value		
Luannan	7,412	2.4	WACC 8.5%, no terminal growth value		
Zouping	3,758	1.2	WACC 8.5%, no terminal growth value		
SLG	14,318	4.7	WACC 8.5%, no terminal growth value		
Solar - Japan	8,269	2.7	WACC 3.7%, no terminal growth value		
Solar - China	3,969	1.3	WACC 8.5%, no terminal growth value		
Solar - Thailand	326	0.1	WACC 7.0%, no terminal growth value		
Wind - Soc Trang (Vietnam)	1,563	0.5	WACC 8.5%, no terminal growth value		
Wind - Mui Dinh (Vietnam)	3,031	1.0	WACC 8.5%, no terminal growth value		
Sun Seap (48.6%)	1,141	0.4	WACC 6.7%, no terminal growth value		
Durapower	1,725	0.6	WACC 6.7%, no terminal growth value		
Nakoso (3Q21)	1,841	0.6	WACC 3.5%, no terminal growth value		
BSF & MSF Australia (solar, Jun 2021)	191	0.1	WACC 6.7%, no terminal growth value		
Net cash (debt)	(2,610)	(0.9)	At end-2021E		
Minorities	(1,055)	(0.3)			
<b>Residual ordinary equity</b>	<b>70,125</b>	<b>23.0</b>			

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Sources: BPP; FSSIA estimates

## Financial Statements

### Banpu Power

Profit and Loss (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Revenue	5,687	6,152	11,038	11,285	11,257
Cost of goods sold	(3,962)	(3,907)	(6,603)	(6,674)	(6,668)
<b>Gross profit</b>	<b>1,725</b>	<b>2,245</b>	<b>4,436</b>	<b>4,611</b>	<b>4,588</b>
Other operating income	-	-	-	-	-
Operating costs	(1,749)	(946)	(2,760)	(2,596)	(1,576)
<b>Operating EBITDA</b>	<b>(24)</b>	<b>1,299</b>	<b>1,676</b>	<b>2,016</b>	<b>3,013</b>
Depreciation	(613)	(402)	(1,392)	(1,392)	(1,392)
Goodwill amortisation	0	0	0	0	0
<b>Operating EBIT</b>	<b>(637)</b>	<b>897</b>	<b>284</b>	<b>623</b>	<b>1,620</b>
Net financing costs	(370)	279	(179)	(148)	(55)
Associates	3,673	3,565	5,037	5,415	4,699
Recurring non-operating income	4,249	2,988	5,710	6,155	5,512
Non-recurring items	(34)	(81)	0	0	0
<b>Profit before tax</b>	<b>3,207</b>	<b>4,084</b>	<b>5,815</b>	<b>6,631</b>	<b>7,078</b>
Tax	(204)	(300)	(215)	(328)	(642)
<b>Profit after tax</b>	<b>3,003</b>	<b>3,783</b>	<b>5,600</b>	<b>6,303</b>	<b>6,437</b>
Minority interests	(34)	(81)	(186)	(189)	(191)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
<b>Reported net profit</b>	<b>2,969</b>	<b>3,702</b>	<b>5,413</b>	<b>6,114</b>	<b>6,246</b>
<b>Non-recurring items &amp; goodwill (net)</b>	<b>34</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Recurring net profit</b>	<b>3,003</b>	<b>3,783</b>	<b>5,413</b>	<b>6,114</b>	<b>6,246</b>
<b>Per share (THB)</b>					
Recurring EPS *	0.98	1.24	1.77	2.00	2.05
Reported EPS	0.97	1.21	1.77	2.00	2.05
DPS	0.65	0.65	0.80	0.80	0.80
Diluted shares (used to calculate per share data)	3,051	3,051	3,051	3,051	3,051
<b>Growth</b>					
Revenue (%)	(10.0)	8.2	79.4	2.2	(0.3)
Operating EBITDA (%)	nm	nm	29.0	20.2	49.5
Operating EBIT (%)	nm	nm	(68.3)	119.4	159.9
Recurring EPS (%)	(21.2)	26.0	43.1	13.0	2.1
Reported EPS (%)	(22.1)	24.7	46.2	13.0	2.1
<b>Operating performance</b>					
Gross margin inc. depreciation (%)	19.6	29.9	27.6	28.5	28.4
Gross margin of key business (%)	19.0	28.6	27.6	28.5	28.4
Operating EBITDA margin (%)	(0.4)	21.1	15.2	17.9	26.8
Operating EBIT margin (%)	(11.2)	14.6	2.6	5.5	14.4
Net margin (%)	52.8	61.5	49.0	54.2	55.5
Effective tax rate (%)	-43.8	58.0	27.6	27.0	27.0
Dividend payout on recurring profit (%)	66.0	52.4	45.1	39.9	39.1
Interest cover (X)	9.7	(13.9)	33.5	45.9	130.5
Inventory days	41.6	43.5	37.1	46.0	46.2
Debtor days	91.5	62.1	31.0	30.3	30.4
Creditor days	51.7	26.5	12.5	15.5	15.6
Operating ROIC (%)	(4.2)	6.0	(0.5)	(1.0)	(2.7)
ROIC (%)	6.6	7.2	(2.6)	(2.9)	(3.1)
ROE (%)	7.6	9.4	12.7	13.3	12.5
ROA (%)	6.6	7.4	10.7	11.2	10.7

\* Pre-exceptional, pre-goodwill and fully diluted

Revenue by Division (THB m)	2019	2020	2021E	2022E	2023E
Power	5,687	6,152	11,038	11,285	11,257

Sources: Banpu Power; FSSIA estimates

## Financial Statements

### Banpu Power

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Recurring net profit	3,003	3,783	5,413	6,114	6,246
Depreciation	613	402	1,392	1,392	1,392
Associates & minorities	3,673	3,565	5,037	5,415	4,699
Other non-cash items	-	-	-	-	-
Change in working capital	(238)	(3,353)	(2,137)	(103)	12
<b>Cash flow from operations</b>	<b>7,051</b>	<b>4,398</b>	<b>9,705</b>	<b>12,819</b>	<b>12,348</b>
Capex - maintenance	(100)	(101)	(1,000)	(1,000)	(1,000)
Capex - new investment	(177)	(3,593)	(500)	(500)	(500)
Net acquisitions & disposals	4,856	(6,094)	500	1,000	1,000
Other investments (net)	5,693	4,178	5,037	5,415	4,699
<b>Cash flow from investing</b>	<b>10,272</b>	<b>(5,610)</b>	<b>4,037</b>	<b>4,915</b>	<b>4,199</b>
Dividends paid	(1,983)	(1,983)	(2,288)	(2,441)	(2,441)
Equity finance	0	0	0	0	0
Debt finance	(746)	(1,091)	0	0	0
Other financing cash flows	(9,524)	(214)	(9,887)	(10,641)	(9,206)
<b>Cash flow from financing</b>	<b>(12,254)</b>	<b>(3,288)</b>	<b>(12,175)</b>	<b>(13,082)</b>	<b>(11,647)</b>
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
<b>Net other adjustments</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Movement in cash</b>	<b>5,069</b>	<b>(4,500)</b>	<b>1,566</b>	<b>4,652</b>	<b>4,899</b>
Free cash flow to firm (FCFF)	17,611.09	(968.47)	13,964.11	17,956.70	16,768.73
Free cash flow to equity (FCFE)	7,052.59	(2,516.46)	3,854.52	7,092.85	7,340.27
<b>Per share (THB)</b>					
FCFF per share	5.77	(0.32)	4.58	5.89	5.50
FCFE per share	2.31	(0.82)	1.26	2.32	2.41
Recurring cash flow per share	2.39	2.54	3.88	4.24	4.04
<b>Balance Sheet (THB m) Year Ending Dec</b>					
Tangible fixed assets (gross)	17,931	13,876	14,876	15,376	15,876
Less: Accumulated depreciation	(6,035)	(5,875)	(7,267)	(8,659)	(10,051)
<b>Tangible fixed assets (net)</b>	<b>11,896</b>	<b>8,001</b>	<b>7,609</b>	<b>6,717</b>	<b>5,825</b>
<b>Intangible fixed assets (net)</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	20,545	26,639	26,639	26,639	26,639
Cash & equivalents	6,669	2,169	3,735	8,387	13,286
A/C receivable	1,156	938	938	938	938
Inventories	427	505	836	845	844
Other current assets	646	3,907	7,010	7,166	7,148
<b>Current assets</b>	<b>8,899</b>	<b>7,519</b>	<b>12,519</b>	<b>17,336</b>	<b>22,217</b>
Other assets	7,431	7,366	7,366	7,366	7,366
<b>Total assets</b>	<b>48,808</b>	<b>49,563</b>	<b>54,171</b>	<b>58,096</b>	<b>62,085</b>
Common equity	39,079	41,109	44,234	47,907	51,712
Minorities etc.	737	869	1,055	1,244	1,435
<b>Total shareholders' equity</b>	<b>39,816</b>	<b>41,978</b>	<b>45,289</b>	<b>49,151</b>	<b>53,147</b>
Long term debt	5,029	3,481	3,481	3,481	3,481
Other long-term liabilities	119	37	37	37	37
<b>Long-term liabilities</b>	<b>5,148</b>	<b>3,518</b>	<b>3,518</b>	<b>3,518</b>	<b>3,518</b>
A/C payable	397	170	281	284	284
Short term debt	1,948	2,405	2,405	2,405	2,405
Other current liabilities	1,499	1,492	2,678	2,737	2,731
<b>Current liabilities</b>	<b>3,843</b>	<b>4,067</b>	<b>5,364</b>	<b>5,427</b>	<b>5,419</b>
<b>Total liabilities and shareholders' equity</b>	<b>48,808</b>	<b>49,563</b>	<b>54,171</b>	<b>58,096</b>	<b>62,085</b>
Net working capital	334	3,687	5,825	5,927	5,916
Invested capital	40,243	45,731	47,477	46,687	45,784
* Includes convertibles and preferred stock which is being treated as debt					
<b>Per share (THB)</b>					
Book value per share	12.81	13.47	14.50	15.70	16.95
Tangible book value per share	12.80	13.46	14.49	15.69	16.94
<b>Financial strength</b>					
Net debt/equity (%)	0.8	8.9	4.7	(5.1)	(13.9)
Net debt/total assets (%)	0.6	7.5	4.0	(4.3)	(11.9)
Current ratio (x)	2.3	1.8	2.3	3.2	4.1
CF interest cover (x)	20.5	(2.9)	25.3	52.4	144.4
<b>Valuation</b>					
<b>Recurring P/E (x) *</b>	<b>17.5</b>	<b>13.9</b>	<b>9.7</b>	<b>8.6</b>	<b>8.4</b>
<b>Recurring P/E @ target price (x) *</b>	<b>23.4</b>	<b>18.5</b>	<b>13.0</b>	<b>11.5</b>	<b>11.2</b>
Reported P/E (x)	17.7	14.2	9.7	8.6	8.4
Dividend yield (%)	3.8	3.8	4.7	4.7	4.7
Price/book (x)	1.3	1.3	1.2	1.1	1.0
Price/tangible book (x)	1.3	1.3	1.2	1.1	1.0
EV/EBITDA (x) **	(2,189.7)	43.9	33.2	25.4	15.4
EV/EBITDA @ target price (x) **	(2,913.7)	57.5	43.8	34.2	21.3
EV/invested capital (x)	1.3	1.2	1.2	1.1	1.0
* Pre-exceptional, pre-goodwill and fully diluted ** EBITDA includes associate income and recurring non-operating income					

Sources: Banpu Power; 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	SEOIL	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	TRC	TSC	TSR	TSTE	TSTH
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	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	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

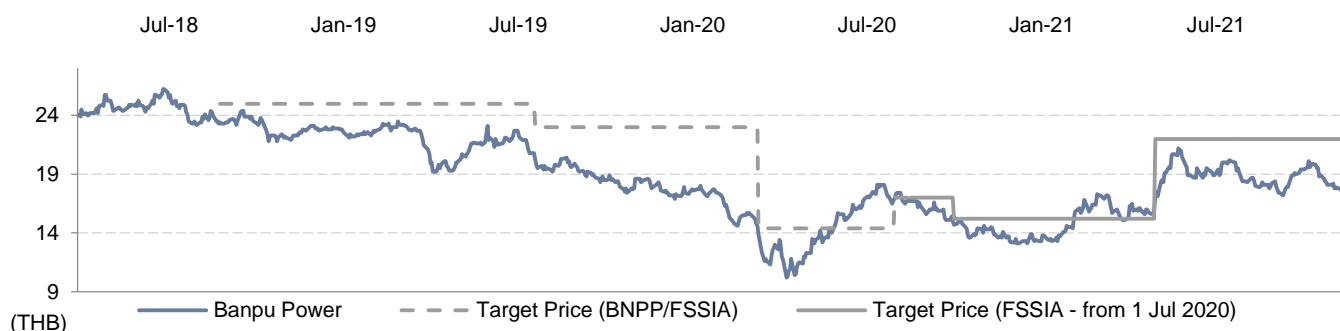
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) 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 Power (BPP TB)



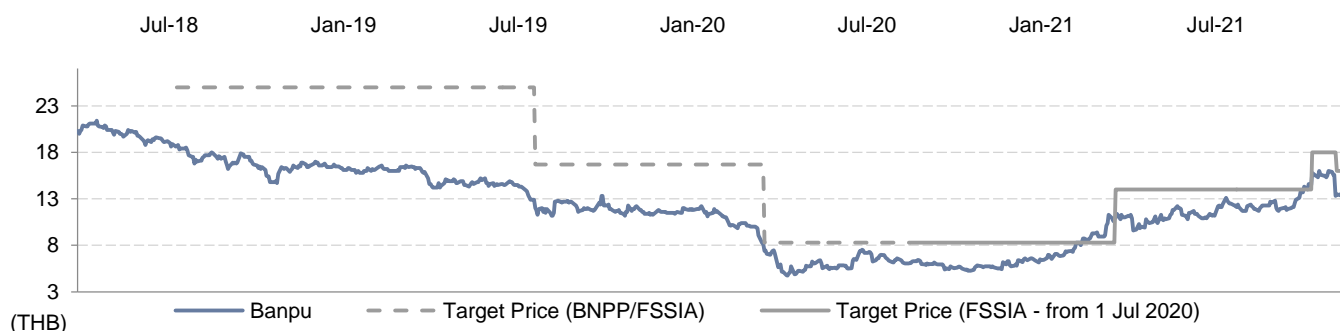
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
15-Nov-2018	HOLD	25.00	17-Jun-2020	HOLD	17.00	16-Oct-2020	HOLD	15.20
13-Aug-2019	HOLD	23.00	17-Jun-2020	HOLD	17.00	26-Jan-2021	BUY	22.00
21-Feb-2020	HOLD	14.40	06-Aug-2020	HOLD	15.20			

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

Price and TP are in local currency

Source: FSSIA estimates

#### 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

Company	Ticker	Price	Rating	Valuation & Risks
Banpu Power	BPP TB	THB 17.20	BUY	Downside risks to our SOTP valuation are the start-up delays of its new projects and government intervention in the electricity tariff.
Banpu	BANPU TB	THB 13.20	HOLD	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.

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 12-Jul-2021 unless otherwise stated.

## RECOMMENDATION STRUCTURE

### Stock ratings

Stock ratings are based on absolute upside or downside, which we define as  $(\text{target price}^* - \text{current price}) / \text{current price}$ .

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.