

15 DECEMBER 2021

THAILAND / UTILITIES - CONVENTIONAL

# BANPU POWER BPP TB

## BUY

UNCHANGED

TARGET PRICE	THB23.00
CLOSE	THB17.30
UP/DOWNSIDE	+32.9%
PRIOR TP	THB23.00
CHANGE IN TP	UNCHANGED
TP vs CONSENSUS	+9.1%

## Toward a greener growth roadmap

### Acquisitions and divestments are value accretive

In the past two years, BPP has grown its asset portfolio via the acquisition of multiple assets overseas and new organic projects, adding a total equity capacity of 1.8GW in 2019-21. These include – 2019: Jixin solar farm in China and the Vin Chau wind farm in Vietnam; 2020: Global Engineering in Japan in Feb-20 and the EI Wind Mui Dinh wind farm in Vietnam in 4Q20; 2021: the Nakoso Integrated Gasification Combined Cycle power plant in Japan in Apr-21, the Beryl and Manildra solar farms in Australia in Jun-21, the Temple gas-fired independent power producer (IPP) in the US in Nov-21, and the Ha Tinh solar farm on 2 Dec-21. In addition, BPP divested its stake in Sunseap Group, a developer and operator of solar and wind farms in many countries in Asia, for which it will book a gain of USD100m in 1Q22.

### More sustainable and visible growth roadmap

With a number of committed growth projects in the pipeline, we project BPP's net profit to grow from THB3.7b in 2020 to THB6.2b in 2023. On top of the committed growth capacity, we think BPP is likely to continue its growth strategy to acquire more assets in operating, brownfield and greenfield power projects and EV-related businesses to further strengthen its ongoing transformation from a coal-based utility firm into a green energy, EV, and energy storage system (ESS) company.

### Greener capacity growth remains on track

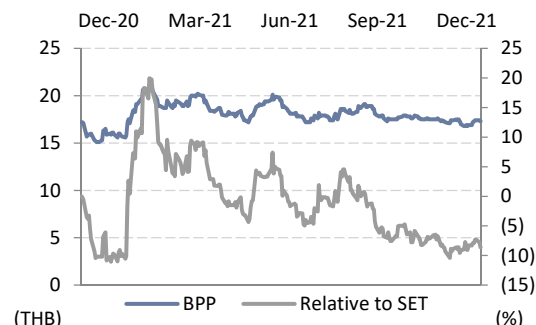
We forecast that by 2023, BPP's power equity capacity will rise to 3.5GW, up from 2.3GW in 2020, and we expect the coal-fired capacity proportion to decline from 83% in 2020 to 68% in 2023. While the acquisition of the gas-fired IPP in the US is to strategically leverage Banpu (BANPU TB, BUY, TP THB16.9)'s existing shale gas business in Texas, the remaining capacity growth from renewable and transitional HELE technology should effectively reduce BPP's carbon emissions and gradually turn it into a green utility and EV company, in our view.

### From coal-based to green-focused utility company

We maintain BUY and our SOTP-based target price of THB23. We think BPP is becoming increasingly attractive as one of Thailand's greener utility companies with strong net profit growth, given its strategic shift from coal to renewable-based growth. We think BPP is a good fit for long-term investment due to its sustainable growth, greener earnings, and more diversified business portfolio.

## 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 (%)	-	23.8	16.7	10.8
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. (%)	-	-	-	-
EPS growth (%)	26.0	43.1	13.0	2.1
Core P/E (x)	14.0	9.8	8.6	8.5
Dividend yield (%)	3.8	4.6	4.6	4.6
EV/EBITDA (x)	44.2	33.4	25.6	15.5
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 (%)	0.6	(2.8)	2.4
Relative to country (%)	0.8	(3.2)	(7.3)
Mkt cap (USD m)	1,580		
3m avg. daily turnover (USD m)	1.7		
Free float (%)	21		
Major shareholder	BANPU Plc (79%)		
12m high/low (THB)	21.60/14.80		
Issued shares (m)	3,051.02		

Sources: Bloomberg consensus; FSSIA estimates



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## 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.

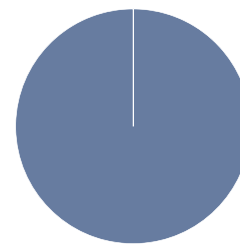
## Company profile

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 %

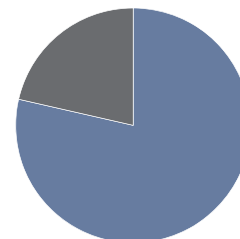


Source: Banpu Power

## 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
Feb 2022	4Q21/2021 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

## Transforming to a greener and stronger asset portfolio

In the past two years, BPP has grown its asset portfolio via the acquisition of multiple assets overseas and new organic projects, adding a total equity capacity of 1.8GW in 2019-21. These include:

**2019:** Jixin solar farm in China and the Vin Chau wind farm in Vietnam;

**2020:** Global Engineering in Japan in Feb-20 and the EI Wind Mui Dinh wind farm in Vietnam in 4Q20;

**2021:** The Nakoso Integrated Gasification Combined Cycle (IGCC) power plant in Japan in Apr-21, the Beryl and Manildra solar farms in Australia in Jun-21, the Temple gas-fired IPP in the US in Nov-21, and the Ha Tinh solar farm on 2 Dec-21.

In addition, BPP divested its stake in Sunseap Group, a developer and operator of solar and wind farms in many countries in Asia, for which it will book a gain of USD100m in 1Q22.

Most of the power plants acquisitions were implemented via Banpu NEXT (not listed), which BPP and BANPU each own a 50% stake in, while BANPU owns a 78.6% stake in BPP. This strategic move is in line with the Banpu group (BANPU and BPP)'s strategic growth roadmap to transform itself from a coal-centric entity into a green renewable and EV-driven company by 2030.

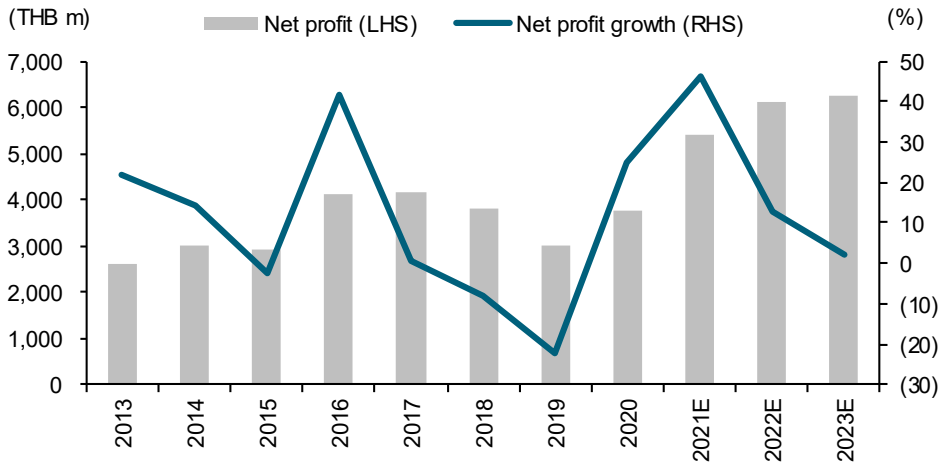
### Exhibit 1: Acquisitions and divestment

New growth projects	Location	Fuel type	Stake (%)	Total capacity (MW)	Equity capacity (MW)	Investment (divestment) (THB m)	EIRR (%)	COD	Note
China - Solar					152		10.0	Operating	
Japan - Solar					233		11.0	2018-23E	
Vietnam - Wind					238		11.0	2020-23E	
SLG IPP	China		30	1,320	396		11.0	Operating	
Vin Chau	Vietnam	Wind	100	80	80		11.0	Phase1: 2020 Phase2,3: 2021	Phase1 - 30MW, Phase2 - 30MW Phase3 - 20MW
Jixin	China	Solar	100	25	25	RMB189.15m		Jun-16	
Global Engineering	Japan	Virtual power plant and energy trading	20	0	0	USD10.5m			Global services to 2,000 IUs and actively participating in VPP platform in Japan
EI Wind Mui Dinh	Vietnam	Onshore wind	50	38	19	2,065	11.0	Apr-19	
Nakoso IGCC	Japan	Gas-fired combined cycle	13	543	73			Apr-21	
Beryl Solar Farm (BSF)	Australia	Solar	10	111	11	2,332		Jun-19	
Manildra Solar Farm (MSF)	Australia	Solar	10	56	6			Dec-18	
Temple Generation	USA	Gas-fired combined cycle	50	768	384	14,298		Jul-14	
Sunseap Group	Singapore	Solar	50	320	160	5,569 (12,154)			Divestment
Ha Tinh Solar Power	Vietnam	Solar	50	50	25	788		2Q19	
<b>Total - Renewable</b>					<b>949</b>				
<b>Total - Gas-fired</b>					<b>853</b>				
<b>Total</b>					<b>1,802</b>				

Sources: BPP; FSSIA's compilation

With a number of committed growth projects in the pipeline, we project BPP's net profit to grow from THB3.7b in 2020 to THB6.2b in 2023. On top of the committed growth capacity, we think BPP is likely to continue its growth strategy to acquire more assets in operating, brownfield and greenfield power projects and EV-related businesses to further strengthen its ongoing transformation from a coal-based utility firm into a green energy, EV, and ESS company.

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



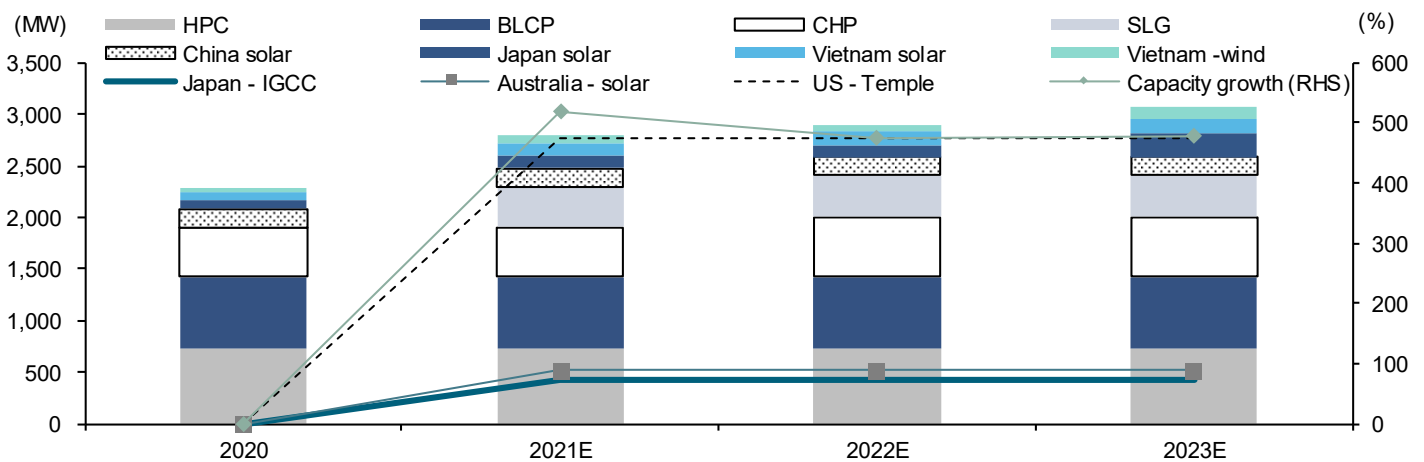
Sources: BPP; FSSIA estimates

Most of BPP's net profit and capacity growth is set to come from renewable projects in Vietnam (solar and wind farms), Japan (solar farms), Australia (solar farms), the high efficiency, low emissions (HELE) coal-to-gas IGCC power plant in Japan, and the gas-fired Temple power plant in the US.

A major organic growth project is the Shan Xi Lu Guang (SLG) coal-fired power plant in China, a project that BANPU expects to leverage for its coal mining business in China.

While the acquisition of the gas-fired IPP in the US is to strategically leverage BANPU's existing shale gas business in Texas, the remaining capacity growth from renewable and transitional HELE technology should effectively reduce BPP's carbon emissions and gradually turn it into a green utility and EV company, in our view.

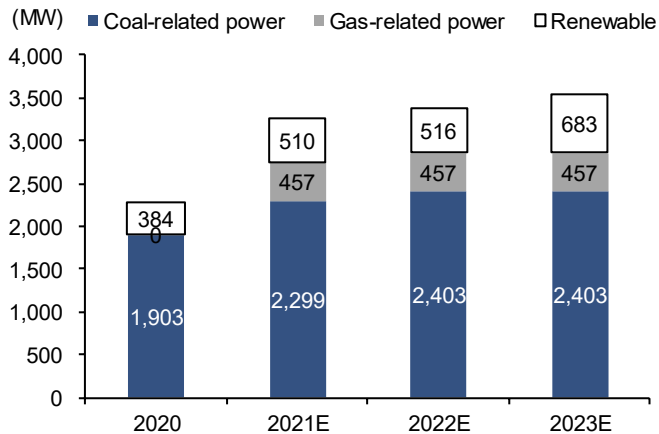
**Exhibit 3: Equity capacity breakdown by project**



Sources: BPP; FSSIA estimates

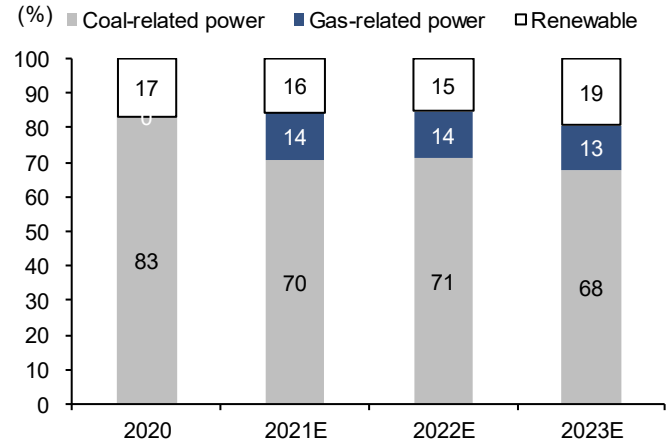
We forecast that by 2023, BPP's power equity capacity will rise to 3.5GW, up from 2.3GW in 2020, and we expect the coal-fired capacity proportion to decline from 83% in 2020 to 68% in 2023.

**Exhibit 4: Equity capacity breakdown by fuel type**



Sources: BPP; FSSIA estimates

**Exhibit 5: Equity capacity breakdown by fuel type (%)**



Sources: BPP; FSSIA estimates

## An attractive, diversified power play

We maintain BUY and our SOTP-based target price of THB23. We think BPP is becoming increasingly attractive as one of Thailand's greener utility companies with strong net profit growth, given its strategic shift from coal to renewable-based growth. We think BPP is a good fit for long-term investment for its sustainable growth, greener earnings, and more diversified business portfolio.

**Exhibit 6: SOTP target**

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	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
Temple	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)	(2,150)	(0.8)	At end-2021E
Minorities	(1,055)	(0.3)	
<b>Residual ordinary equity</b>	<b>70,585</b>	<b>23.0</b>	

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

#### Per share (THB)

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

Balance Sheet (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
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

#### Per share (THB)

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

#### Financial strength

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

Valuation	2019	2020	2021E	2022E	2023E
<b>Recurring P/E (x) *</b>	<b>17.6</b>	<b>14.0</b>	<b>9.8</b>	<b>8.6</b>	<b>8.5</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)	17.8	14.3	9.8	8.6	8.5
Dividend yield (%)	3.8	3.8	4.6	4.6	4.6
Price/book (x)	1.4	1.3	1.2	1.1	1.0
Price/tangible book (x)	1.4	1.3	1.2	1.1	1.0
EV/EBITDA (x) **	(2,202.2)	44.2	33.4	25.6	15.5
EV/EBITDA @ target price (x) **	(2,913.7)	57.5	43.8	34.2	21.3
EV/invested capital (x)	1.3	1.3	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	TTB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	TSC	TSR	TSTE	TSTH	TTA
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		

VERY GOOD LEVEL										
2S	ABM	ACE	ACG	ADB	AEC	AEONTS	AGE	AH	AHC	AIT
ALLA	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	MITISB	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	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	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

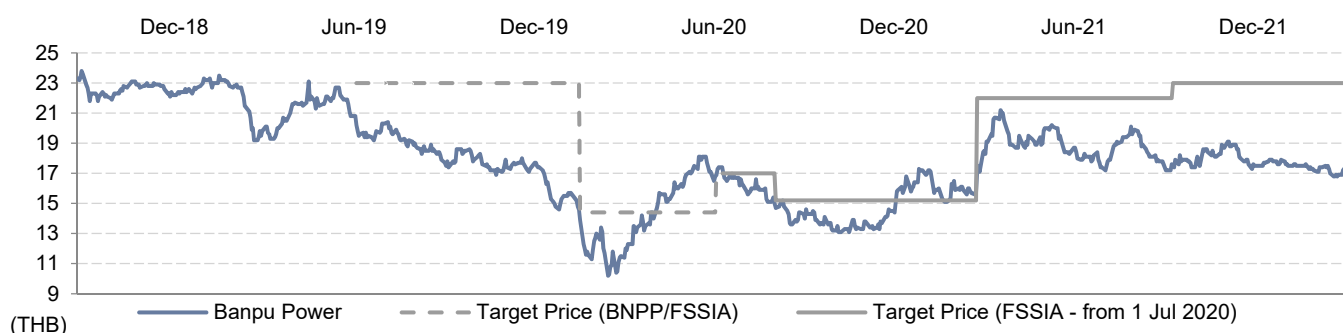
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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



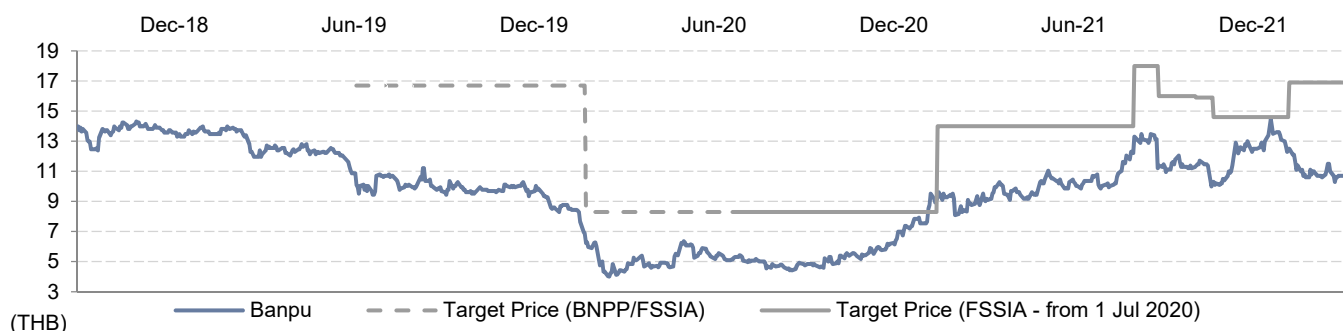
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
13-Aug-2019	HOLD	23.00	17-Jun-2020	HOLD	17.00	26-Jan-2021	BUY	22.00
21-Feb-2020	HOLD	14.40	06-Aug-2020	HOLD	15.20	23-Feb-2021	BUY	22.00
17-Jun-2020	HOLD	17.00	16-Oct-2020	HOLD	15.20	13-Jul-2021	BUY	23.00

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
13-Aug-2019	BUY	16.70	14-Jan-2021	BUY	14.00	17-Aug-2021	BUY	14.60
26-Feb-2020	HOLD	8.30	24-Feb-2021	BUY	14.00	27-Aug-2021	BUY	14.60
26-Feb-2020	HOLD	8.30	10-Jun-2021	BUY	18.00	04-Oct-2021	BUY	14.60
09-Oct-2020	BUY	8.30	01-Jul-2021	HOLD	16.00	21-Oct-2021	BUY	16.90
23-Dec-2020	BUY	14.00	02-Aug-2021	BUY	15.90			

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 17.30	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 10.80	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.

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 14-Dec-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.