

# B.GRIMM POWER BGRIM TB

## THAILAND / UTILITIES - CONVENTIONAL

# BUY

UNCHANGED

TARGET PRICE	THB46.00
CLOSE	THB33.50
UP/DOWNSIDE	+37.3%
PRIOR TP	THB58.00
CHANGE IN TP	-20.7%
TP vs CONSENSUS	-11.3%

## Tale of two dark-bright halves

- BGRIM's recent share price collapse by 28% was caused by investors' grave concerns over the impact of the gas price hike.
- We project the gas price to rise q-q from 4Q21-1Q22 and begin to decline by end-2Q22 on the projected lower spot global LNG price.
- Maintain BUY and lower SoTP-based TP from THB58 to THB46.

### 28% share price plunge is highly unjustified in our opinion

We argue that BGRIM's share price collapse by 28% within five months since Sep-21 was caused by investors' grave concerns over the impact of the gas price hike, which would result in a severe squeeze in the gross margins of BGRIM's sales volumes for the electricity and steam sold to industrial users (IUs) in Thailand in 4Q21-1H22. However, small power producer (SPP) capacity growth should be BGRIM's key driver for its earnings growth that we estimate at 80% y-y in 2022 and 51% y-y in 2023, driven by the new high-margin capacity of seven SPPs. We think BGRIM will see the most significant equity capacity growth in 2022-23 at 270MW (+13% y-y) in 2022 and 289MW (+12% y-y) in 2023.

### From 1H22 gas price strike to 2H22 capacity growth white knight

While we project the gas price to continue to rise q-q from 4Q21 into 1Q22, and note PTT's plan to import more spot LNG to fill the supply gap caused by gas production declines from the Bongkot and Erawan gas fields, we expect the gas price to begin to decline by end-2Q22 thanks to the projected lower spot global LNG price. PTT plans to import 4.8mt of spot LNG in 2022, up from 1.4mt in 2021. This should lead to higher gas prices in 1H22, but they should greatly decline in 2H22 as the global LNG supply should increase, according to the US Energy Information Agency.

### Why we think investors should Buy BGRIM now rather than later

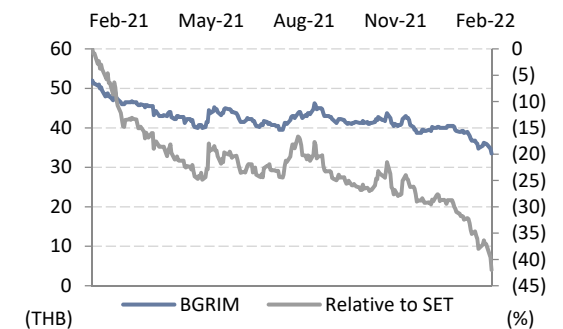
After its share price decline by 28% from THB46.25 on 31 Aug-21 down to THB33.5 on 8 Feb-22, we now believe BGRIM is highly attractive, based on four convictions for BGRIM's 2022E P/E valuation: 1) a 22.7% discount to our estimated replacement price of THB43.36; 2) a 27.2% discount to our SoTP-based target price of THB46; 3) a deep 45.7% discount to BGRIM's 4-year historical P/E average of 40x; and 4) an attractive 0.27x 2022E PEG.

### Maintain BUY and lower SoTP-based TP to THB46

We maintain BUY and lower our SoTP-based TP from THB58 to THB46. We cut our 2021E EPS by 22.7% to reflect a 35.9% gas cost rise, but raise our 2022-23E EPS by 0.9-1.4% on our higher utilisation rate and average tariff assumptions. BGRIM's strong expected net profit growth of 80% y-y in 2022 and 51% y-y in 2023 would be driven by 0.5GW of equity capacity growth from seven high-margin SPPs with a higher proportion of IU sales amounting to over 75% of the total sales volume.

### KEY STOCK DATA

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	44,087	56,461	66,555	80,818
Net profit	2,175	2,229	4,021	6,053
EPS (THB)	0.83	0.85	1.54	2.32
vs Consensus (%)	-	(16.0)	27.7	36.4
EBITDA	12,694	12,536	16,300	20,588
Core net profit	2,617	2,229	4,021	6,053
Core EPS (THB)	1.00	0.85	1.54	2.32
Chg. In EPS est. (%)	-	(22.7)	1.4	0.9
EPS growth (%)	7.6	(14.8)	80.4	50.6
Core P/E (x)	33.4	39.2	21.7	14.4
Dividend yield (%)	1.1	1.2	2.4	3.0
EV/EBITDA (x)	12.4	13.2	10.7	8.8
Price/book (x)	3.2	3.0	2.8	2.4
Net debt/Equity (%)	146.6	150.7	140.6	122.5
ROE (%)	9.4	7.9	13.3	18.0



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(14.6)	(21.2)	(33.7)
Relative to country (%)	(16.0)	(23.6)	(40.2)
Mkt cap (USD m)	2,652		
3m avg. daily turnover (USD m)	14.7		
Free float (%)	31		
Major shareholder	B. Grimm Power (Singapore) Pte Ltd (34%)		
12m high/low (THB)	52.50/33.50		
Issued shares (m)	2,606.90		

Sources: Bloomberg consensus; FSSIA estimates



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### Investment thesis

B.Grimm Power (BGRIM) is one of Thailand’s small power producer (SPP) pioneers, providing a reliable source of electricity to industrial users (IUs). It has continued to expand its portfolio, with the number of its SPPs increasing from one in 1998 to 13 at end-2016 and 17 as of 1Q20; while equity capacity has risen from 85MW in 1998 to 974MW in 2016 and 1,996MW in 2019. Its solid operational efficiency and optimisation, as well as in-house development and maintenance services, have made BGRIM a reliable power supplier and generated solid returns for its shareholders.

With a superior SPP portfolio and solid capabilities in SPP development and operations, BGRIM plans to expand its capacity substantially. The company aims to increase its equity capacity by 65% from 974MW in 2016 to 2,319MW in 2022, and aims to increase its renewable energy and conventional power capacities via SPPs in domestic and overseas markets.

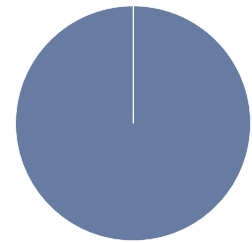
### Company profile

BGRIM is a holding company investing in electricity generating businesses of small power producers (SPP) with major gas-fired and solar farm power assets in Thailand, Laos, and Vietnam.

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

### Principal activities (revenue, 2020)

■ Electricity generation - 100.0 %



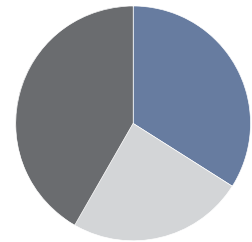
Source: B.Grimm Power

### Major shareholders

■ B. Grimm Power (Singapore) Pte Ltd - 34.0 %

■ Mr. Harald Link - 24.3 %

■ Others - 41.7 %



Source: B.Grimm Power

### Catalysts

Higher utilisation rates of power plants, rising demand for electricity in Thailand and Vietnam, and higher crude oil prices are key potential earnings growth drivers.

### Risks to our call

The downside risks to our SoTP-based TP include 1) lower-than-expected demand for electricity in Thailand, 2) a lower crude price, and 3) unplanned shutdowns of its SPPs.

### Event calendar

Date	Event
Feb 2022	4Q21/2021 results announcement

### Key assumptions

	2021E	2022E	2023E
Utilisation rate (%)	90	92	93
Dispatched power (GWh)	11,132	12,778	11,504
Oil price (USD/bbl)	75	70	70
Average tariff (THB/kWh)	3.12	3.31	3.47
Gas price (THB/mmBtu)	304	295	286

Source: FSSIA estimates

### Earnings sensitivity

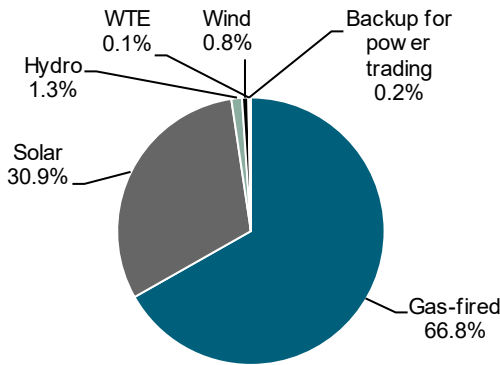
- Ceteris paribus, for every 1% increase in gas price, we estimate 2022 earnings would decline 1.15%, and vice versa.
- Ceteris paribus, for every 1% increase in interest rate, we estimate 2022 earnings would decline 1.2%, and vice versa.

Source: FSSIA estimates

## A tale of two dark (1H22)-bright (2H22) halves in 2022

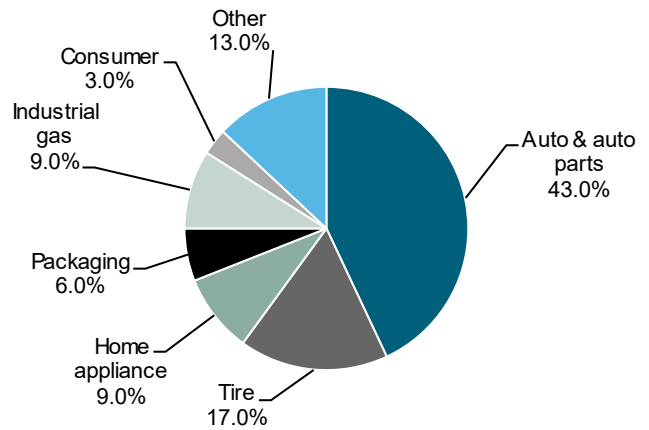
BGRIM is one of Thailand's two largest SPP operators with a total equity SPP capacity of 1.3GW, representing 66.8% of its total 1.96GW capacity as of 9M21. The remainder of its capacity is renewable, comprising 0.6GW solar, 25MW hydro, 15MW wind, 2MW waste-to-energy (WTE), and 4MW power for backup and trading.

**Exhibit 1: Equity capacity (1,961MW) breakdown by power plant type (9M21)**



Sources: BGRIM; FSSIA estimates

**Exhibit 2: IU breakdown by industry**

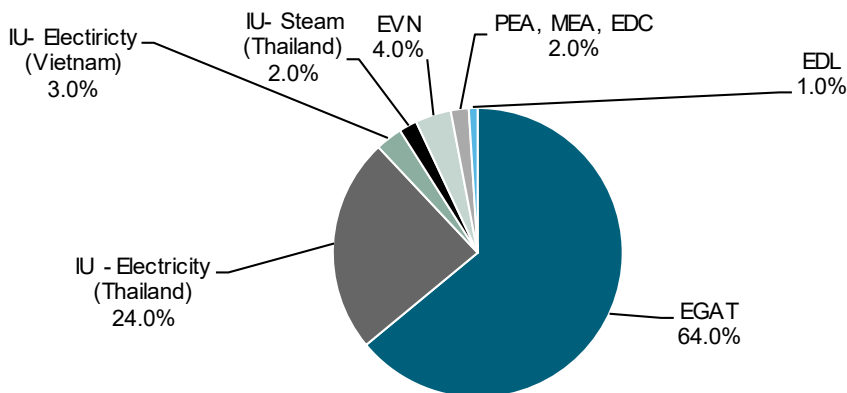


Sources: BGRIM; FSSIA estimates

All of BGRIM's IUs in Thailand are located inside the industrial estates where BGRIM's SPP power plants are located (26% of revenue in 3Q21), and are the export-driven companies involved in industries such as auto parts (43% of total revenue from IUs in Thailand), tires (17%), home appliances (9%), packaging (6%), industrial gas (9%), consumer (3%), and others (13%). Hence, the demand for electricity and steam sold to IUs is directly linked to Thailand's export health.

Revenue for non-IUs in Thailand comes from three state-owned enterprises in Thailand: the Electricity Generating Authority of Thailand (EGAT) at 64% of total revenue as of 9M21, the Provincial Electricity Authority of Thailand (PEA) and the Metropolitan Electricity Authority of Thailand (MEA). In Vietnam, revenues come from Electricity of Vietnam (EVN; 4% as of 9M21) and IUs (3%). In Laos, Électricité du Laos (EDL) accounted for 1% of revenue as of 9M21. All except the IUs in Vietnam have a cost pass-through mechanism that fully protects the gross margins of the electricity produced by BGRIM's SPPs which is sold to those clients.

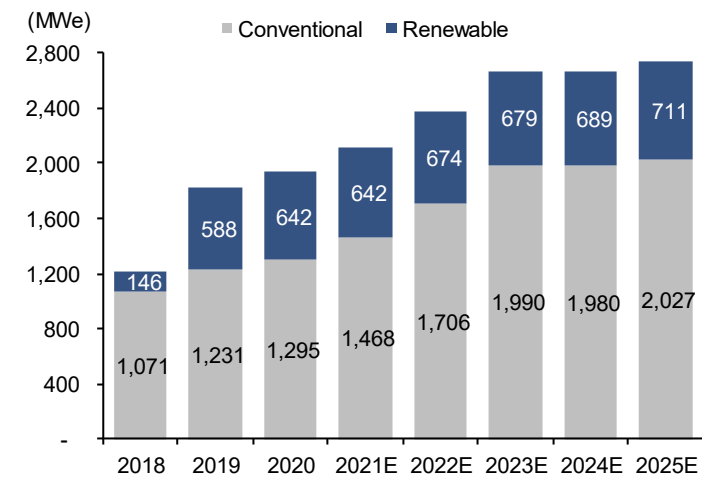
**Exhibit 3: Revenue breakdown by customer (9M21)**



Source: BGRIM

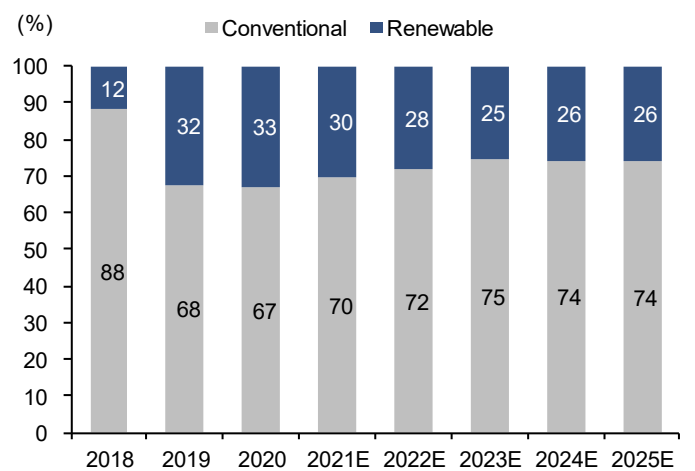
BGRIM aims to achieve capacity growth to 7.2GW of installed capacity by 2025 – 2021E capacity of 3.25GW plus 2025E capacity of 3.9GW – implying that 2021E equity capacity would grow from 2.1GW to 5-6GW by 2025, based on our estimate.

**Exhibit 4: BGRIM’s equity capacity breakdown in the pipeline as of end-2021**



Sources: BGRIM; FSSIA estimates

**Exhibit 5: BGRIM’s equity capacity breakdown in the pipeline as of end-2021 (%)**



Sources: BGRIM; FSSIA estimates

BGRIM has strived for capacity growth in the past five years since 2017, adding new capacity via both organic growth and M&A in a number of countries in order to not only actively grow its capacity but also strategically diversify its power plant portfolio geographically.

We think BGRIM will see the most significant equity capacity growth in 2022-23 at 270MW (+13% y-y) in 2022 and 289MW (+12% y-y) in 2023, mainly from the commencement of the commercial operation dates (COD) of its five new SPPs under new SPP replacement power purchase agreements (PPAs), which will staggeringly begin their CODs in Jul-Dec 2022.

**Exhibit 6: Growth projects**

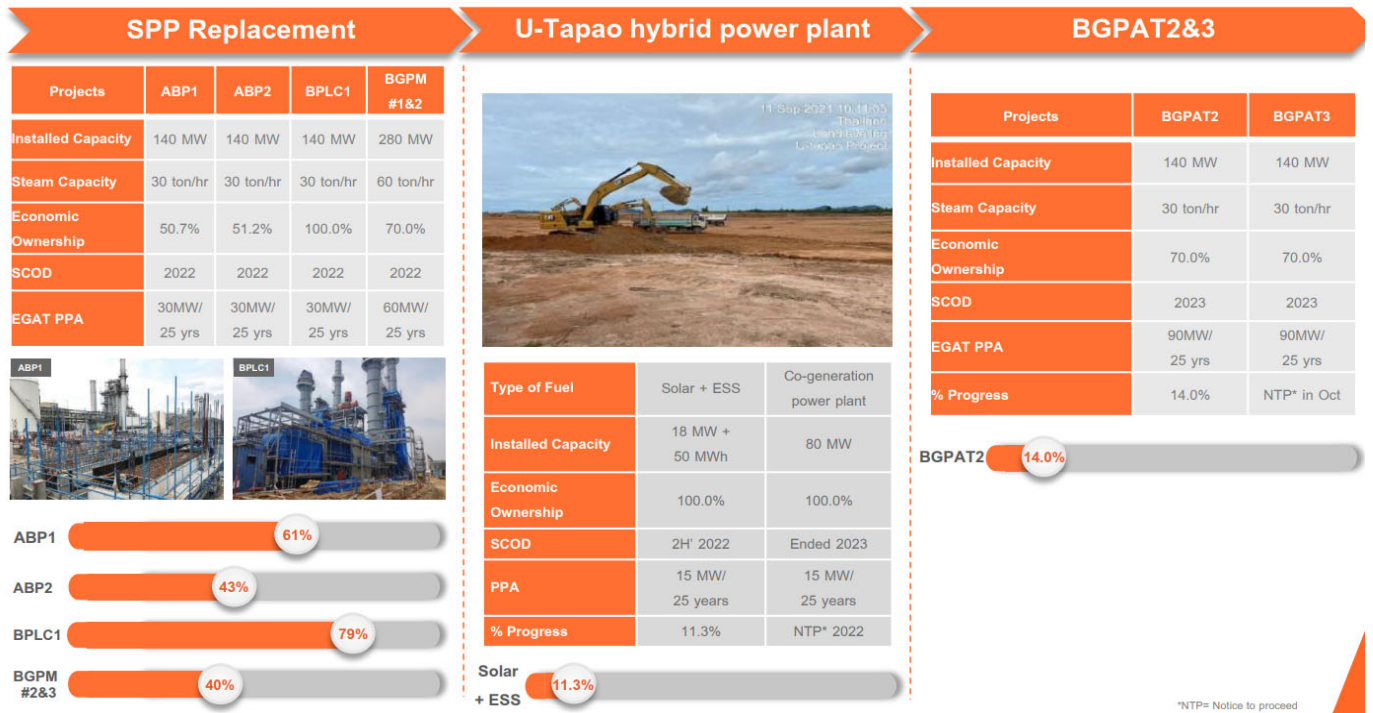
	Equity capacity	Growth (MW)	Growth (%)	Project
2016	974			ABP5, BOWIN
2017	988	14	1	XXHP (SNN, SGD)
2018	1,217	229	23	ABPR3-5 SPPs, WVO solar farm
2019	1,819	602	49	Solar farms in Vietnam, Nam Che, SPP1, ABP1 extension, WTE
2020	1,937	118	6	ATP, Ray solar farm
2021E	2,110	173	9	BOTHONG wind farms, BPAM extension
2022E	2,380	270	13	PEB, PPTC and SSUT, Hybrid U-Tapao (15MW), BPLC1, ABP1, ABP2, SPP1 SPP replacements, Tadsakoi, Nam Khao 4
2023E	2,669	289	12	Huang Hoa, BGPAT1, BGPAT2 SPPs, Nam Khao 2, Hybrid U-Tapao (80MW + ESS 50MW)
2024E	2,669	0	-	Nam Khao 3
2026-30E	3,458	789	30	LNG-to-power, Nam Khao 1, 5
<b>Total equity capacity</b>	<b>3,458</b>	<b>2,484</b>		
CAGR from 2016-2023		1,695	28.7	
CAGR from 2019-2023		1,452	10.1	
CAGR from 2016-2025		2,484	15.1	

Sources: BGRIM; FSSIA estimates

In 2022 alone, BGRIM will see capacity growth from five SPPs with SPP replacement PPAs, including ABP1, ABP2, BPLC1, and BGPM #1&2, all deploying new gas turbines that will have superior technology that could save up to 15% of the gas cost, based on the company's guidance.

In 2023, the main growth driver should come from the CODs of two new SPPs, BGPAT2 and BGPAT3, with a total capacity of 280MW, and an 80MW co-generation power plant under the U-Tapao hybrid power plant.

Exhibit 7: Progress of growth projects with CODs in 2022-23

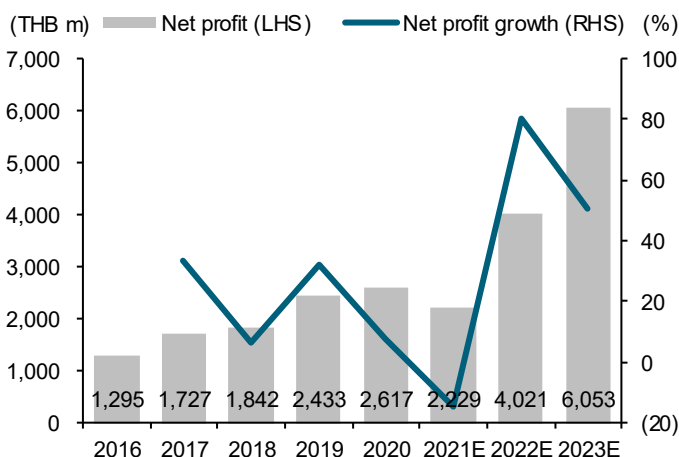


Source: BGRIM

Hence, SPP capacity growth should be the key driver for BGRIM's earnings growth that we estimate at 80% y-y in 2022 and 51% y-y in 2023, driven by the new high-margin capacity of seven SPPs.

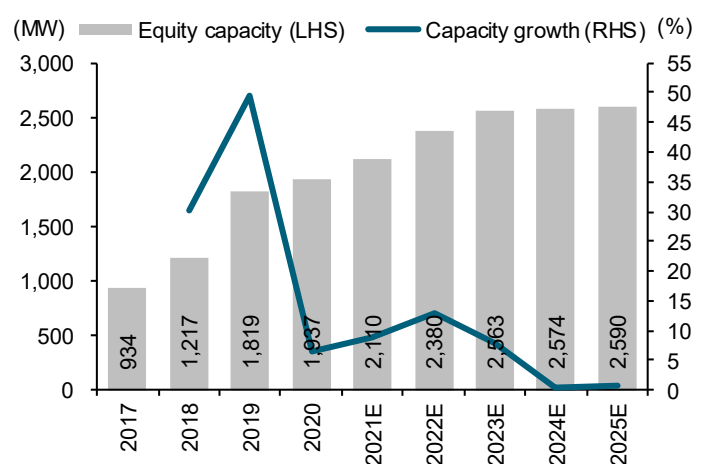
However, in the short term in 4Q21-1H22, BGRIM could see a significant margin squeeze for its electricity and steam sold to IUs in Thailand on the gas cost spike due to Thailand's higher import levels of the expensive spot LNG that is required to compensate for the gas supply shortfall at Erawan gas field.

Exhibit 8: Net profit and net profit growth



Sources: BGRIM; FSSIA estimates

Exhibit 9: Equity capacity and equity capacity growth

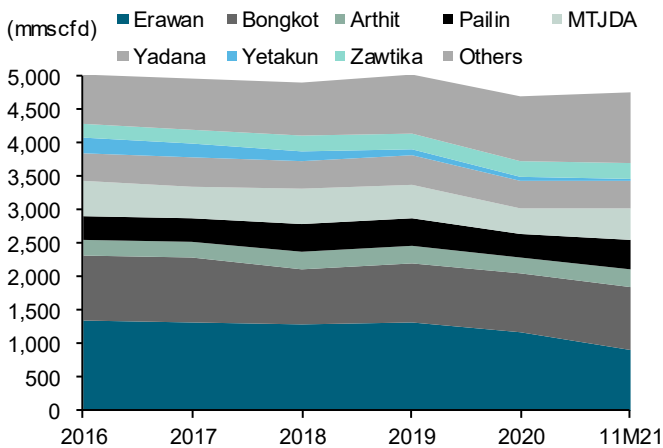


Sources: BGRIM; FSSIA estimates

### A perfect storm from the gas price hike

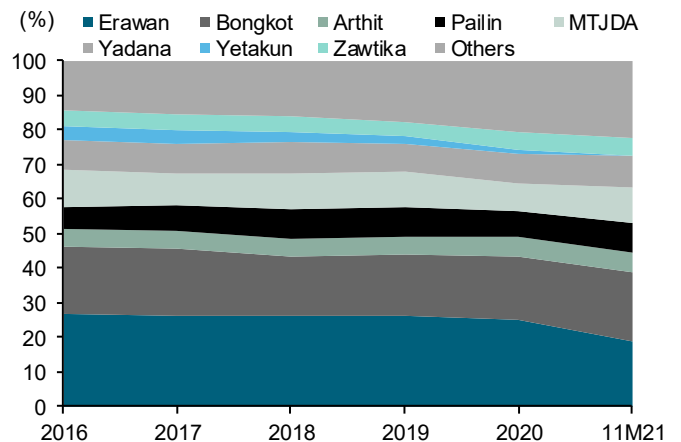
Since 3Q21, Thailand has faced a daunting challenge in maintaining its gas supply security as a result of the gas production interruption at Erawan gas field, which accounts for the largest contribution of Thailand's gas supply at over 20%.

**Exhibit 10: Thailand's gas production breakdown by field**



Sources: Department of Mineral Fuels (DMF) and PTT

**Exhibit 11: Thailand's gas production breakdown by field (%)**



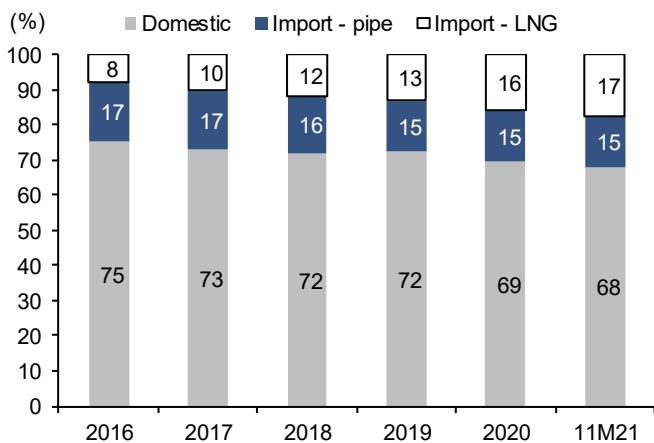
Sources: DMF and PTT

**BGRIM is a victim of the mismanagement of Thailand's gas supply.** We argue that BGRIM's share price collapse by 28% within five months since Sep-21 was caused by investors' grave concerns over the deep impact on the gas price from falling production levels at Bongkot and Erawan, which would inevitably lead to a severe squeeze in the gross margins of BGRIM's sales volumes for the electricity and steam sold to IUs in Thailand.

Since early 2021, Thailand has faced a grave dilemma due to declining gas production levels from the Bongkot and Erawan fields – Thailand's two largest gas fields which accounted for over 45% of the country's total gas supply in 2020.

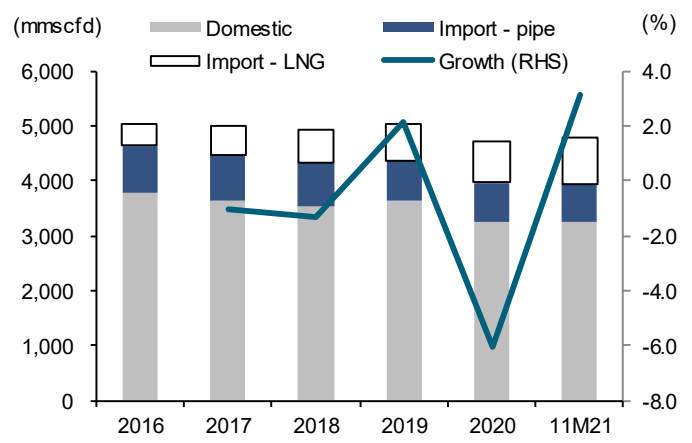
Gas production from the Erawan field has plunged sharply from 1,200mmscfd in 2016-20 down to 900mmscfd in Nov-21. According to PTT Exploration and Production (PTTEP TB, BUY, TP THB162), gas production from Erawan plunged further to a mere 400mmscfd in Jan-22, as Chevron, the former operator, halted the investment required to maintain gas production over a dispute with the Department of Mineral Fuels (DMF) on the issue of decommissioning costs after the expiration of its concession in Apr-22.

**Exhibit 12: Thailand's gas production breakdown**



Source: Energy Policy and Planning Office (EPPO)

**Exhibit 13: Thailand's gas production breakdown (%)**



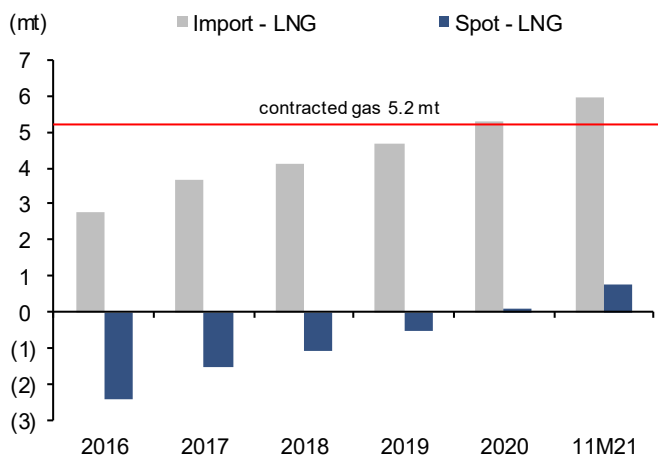
Source: EPPO



Meanwhile, gas production from the Bongkot field similarly declined from 800mmscfd in 2016-19 to 500mmscfd at the end of 2021. The new production service contract for the operator of Bongkot from 2022-42 has effectively lowered the field's gas production from 800mmscfd to 500mmscfd in order to extend the wet gas reserve in the Gulf of Thailand and ensure adequate feedstock for PTT (PTT TB, BUY, TP THB60)'s gas separation plants that produce petrochemical products.

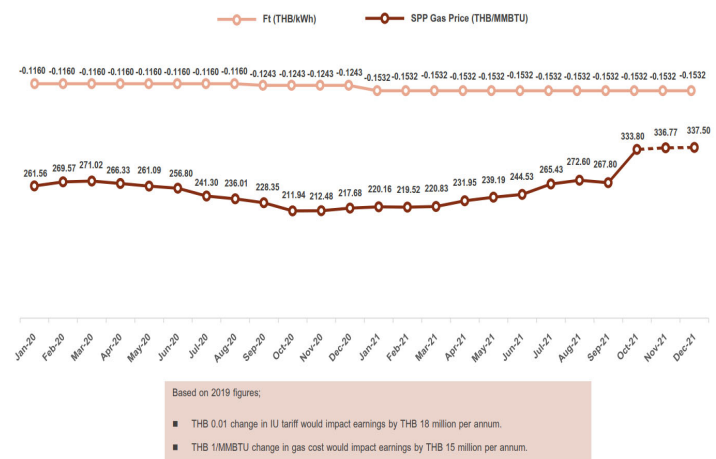
The impact of the lower gas production from Erawan and Bongkot combined has led to a gas supply shortfall of 1,100mmscfd (800mmscfd from Erawan and 300mmscfd from Bongkot). However, the regulator has mandated PTTEP, as the new operator for both Bongkot and Erawan under the new names G2 and G1, to raise gas production from Bongkot to 800mmscfd (+300mmscfd) and the Arthit gas field to 350mmscfd (+100mmscfd) to compensate for the 800mmscfd gas supply shortfall from G1.

Exhibit 14: Thailand's LNG imports and exports



Sources: ERC; PTT; Bloomberg

Exhibit 15: Thailand's fuel tariff (Ft) and SPP gas prices

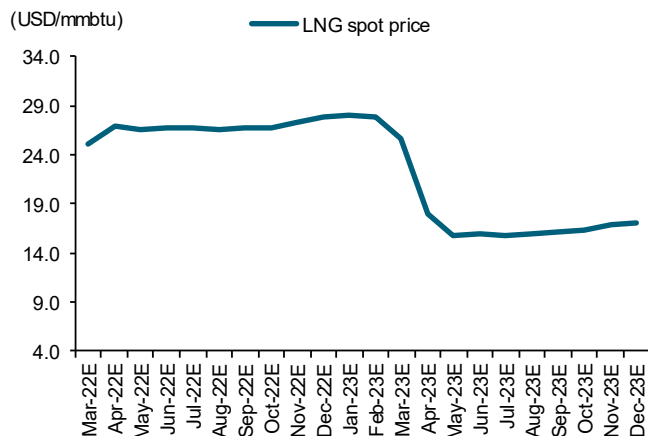


Sources: BGRIM; ERC, PTT

**The excessively high price of LNG imports is the key culprit.** This has forced PTT to import higher volumes of spot LNG, from 1.4mt in 2021 to 4.8mt in 2022, bringing the total LNG import volume to 6.6mt (5.2mt contract volume plus 1.4mt spot volume) in 2021 and 10mt (5.2mt contract volume plus 4.8mt spot volume) in 2022, according to PTT's management.

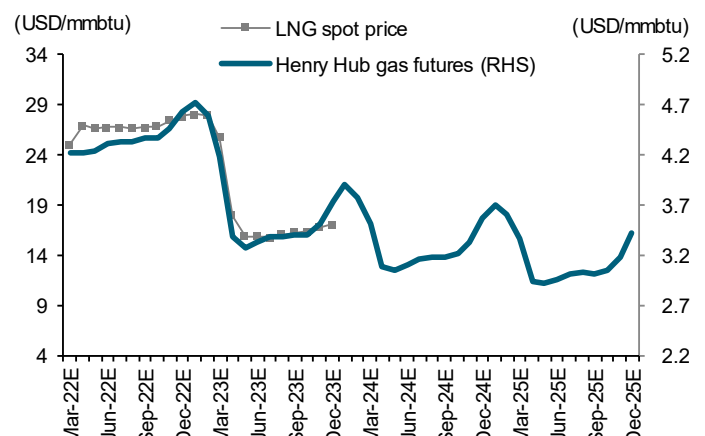
The global LNG price has spiked sharply since 4Q21, mainly due to the abrupt gas supply shortfall in European markets after Russia, which is Europe's largest gas supplier with more than a 40% market share, cut its gas sales volume to Europe due to political disputes. Hence, the global spot LNG price, represented by the Japan-Korea Market (JKM) price benchmark, has spiked from below USD16/mmbtu in 3Q21 to USD36/mmbtu in 4Q21, and remains high at over USD25mmbtu in 1Q22.

Exhibit 16: LNG contract price



Source: Bloomberg

Exhibit 17: LNG contract price vs Henry Hub gas futures

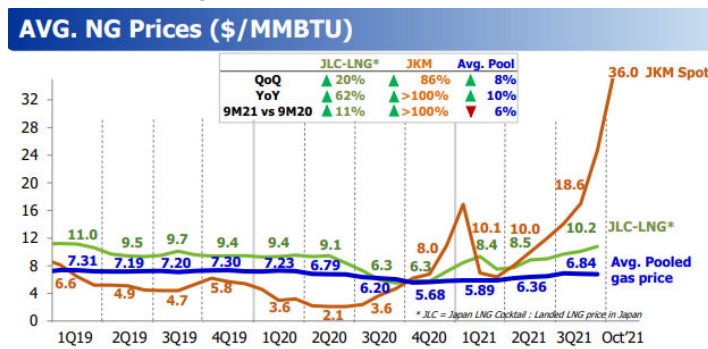


Source: Bloomberg

As PTT has no choice but to raise its spot LNG imports to supplement its 5.2mt LNG import contract to compensate for the gas supply shortfall in Thailand, the average pool gas price has spiked from THB260/mmbtu in 3Q21 to THB320/mmbtu in 4Q21 and is projected to shoot up further to THB360/mmbtu in 1Q22. We expect the local price to dip to THB310/mmbtu in 2Q22 as high winter demand fades and supply from the US rises, relieving upward pressure on the global spot price.

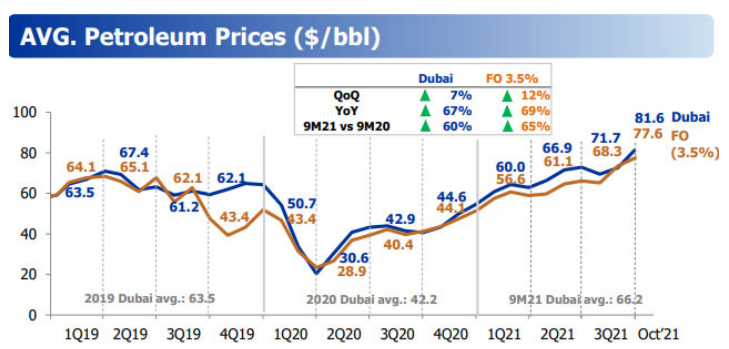
**Wider mismatch between energy cost and selling price in 2H21-1H22.** The gross margin (tariff minus energy cost) of BGRIM's sales volumes for the electricity and steam sold to IUs in Thailand (24% of revenue in 9M21) depends on changes in the electricity tariff and the steam price, which may or may not fully match the changes in gas and coal prices due to government intervention to freeze the national pooled grid electricity tariff, which is directly linked to the tariff for electricity sold to IUs.

**Exhibit 18: Thailand's gas prices for spot (JKM), contract (JLC), and average pool**



Source: PTT

**Exhibit 19: Higher oil and fuel oil prices**



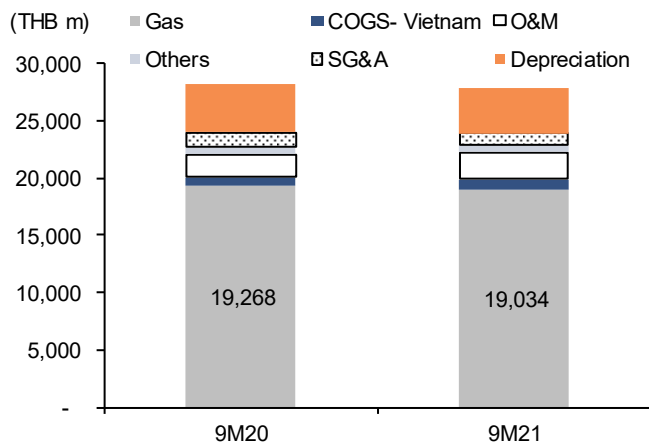
Source: PTT

Given that the combined cost of gas for BGRIM's SPPs accounts for over 68% of its total cost as of 9M21, we think the current mismatch between the cost of coal and gas vs the electricity tariff and the steam selling price sold to IUs could increasingly lead to a margin squeeze for BGRIM's SPPs in 2H21-1H22.

In essence, we believe that the portion of gas cost for SPPs which sell electricity and steam to IUs (c25% of the total SPP gas cost on average) could exceed the portion of electricity and steam revenue from SPPs to IUs (24% of total revenue).

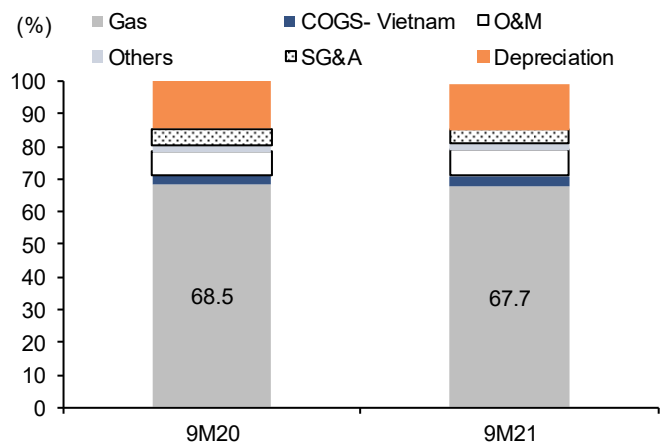
This cost-revenue mismatch shows that BGRIM's margin structure is biased toward the cost side over the revenue side, thereby leading to a negative impact on BGRIM's gross margins for SPPs based on the price uptrends for gas from mid-2021 to mid-2022, based on our estimate.

**Exhibit 20: Cost structure (9M20 vs 9M21)**



Sources: BGRIM; FSSIA estimates

**Exhibit 21: % cost structure (9M20 vs 9M21)**



Sources: BGRIM; FSSIA estimates

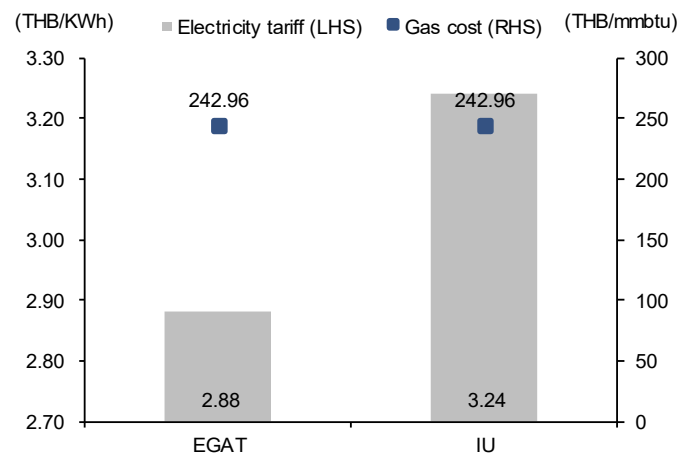
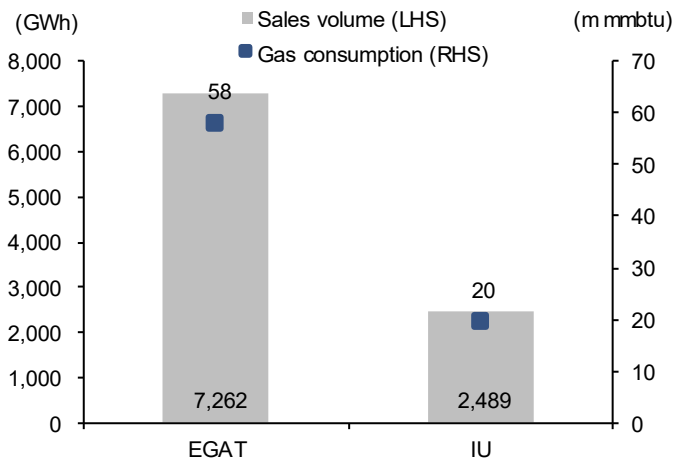


In 9M21, BGRIM sold most of its electricity sales volume to EGAT, which has a full cost pass-through formula, and hence contained no margin risk regardless of the gas price movement.

However, for the electricity sales volume to IUs, the margin of the electricity tariff over the gas cost will vary depending on two factors. First, how fast and how much the government will allow the electricity tariff to rise to match the timing and degree of the gas cost hikes. Second, how much the gas cost will increase as a result of the regulator’s management of the country’s gas supply with a number of different gas sources and prices.

**Exhibit 22: Electricity sales volume breakdown vs gas consumption volume breakdown by customer (9M21)**

**Exhibit 23: Electricity tariff breakdown vs gas cost breakdown by customer (9M21)**



Source: BGRIM

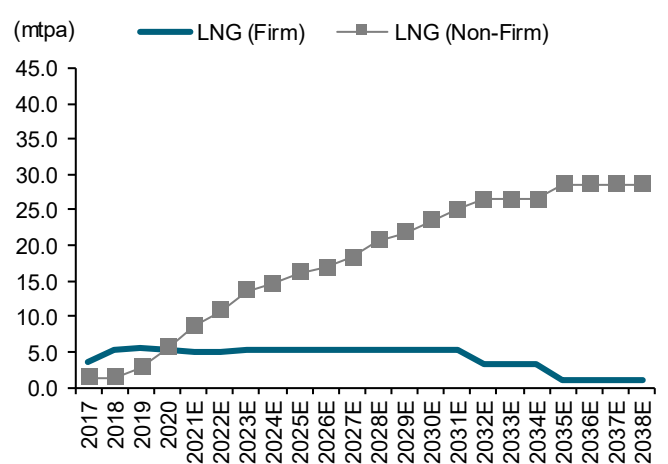
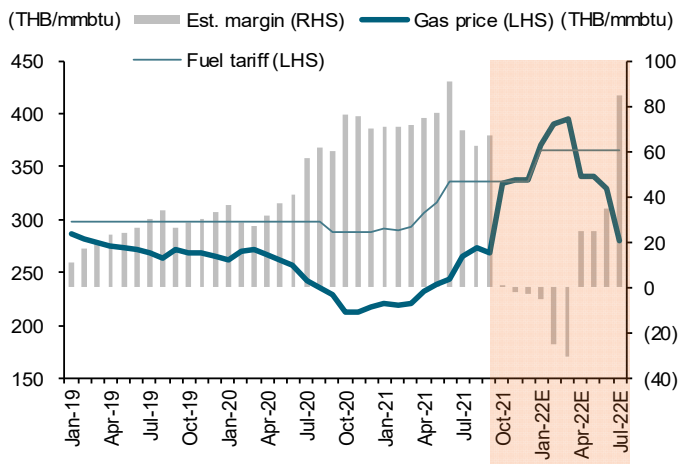
Source: BGRIM

While we project the gas price to continue to rise q-q from 4Q21 into 1Q22, and note PTT’s plan to import more spot LNG to fill the supply gap caused by gas production declines from the Bongkot and Erawan gas fields, we expect the gas price to begin to decline by end-2Q22 thanks to the projected lower spot global LNG price.

As PTT plans to import 4.8mt of spot LNG in 2022, up from 1.4mt in 2021 (imported in Sep-Dec 2021), it is highly likely that the price of imported LNG would be much higher than the revised prices of the contract LNG at USD9-11/mmbtu and the USD8-12/mmbtu for the gas produced in the Gulf of Thailand and imported from Myanmar, as the gas prices of these sources would be linked to the rising high sulphur fuel oil price in the past 6-12 months, based on our estimate.

**Exhibit 24: Estimated gross margin, gas price, and fuel tariff**

**Exhibit 25: Thailand’s projected LNG imports (firm contract volume vs non-firm spot volume)**



Sources: BGRIM; PTT; EGAT; FSSIA estimates

Source: Gas Plan 2018

## 4Q21 results forecast

We project BGRIM to post a weak 4Q21 net profit of THB318m, down 29% q-q and 45% y-y. We expect its core net profit to plunge to THB278m, down 51% q-q and 46% y-y. Key expectations are:

- A sharp drop in the EBITDA margin to 21% in 4Q21, down from 26% in 3Q21 and 30% in 4Q20, as a result of the mismatch between the gas cost hike and the rise in the electricity tariff sold to IUs;
- A 19% q-q higher gas price to THB320/mmbtu vs a 1% rise in the electricity tariff sold to IUs;
- A slight increase in the sales volumes of the electricity sold to IUs and EGAT due to stronger demand after the easing of the lockdowns and higher export volumes;
- A lower electricity sales volume for the solar farms in Vietnam and Thailand that should be offset by the seasonally higher sales volumes of electricity from the wind farms in Thailand.

### Exhibit 26: 4Q21 results forecast

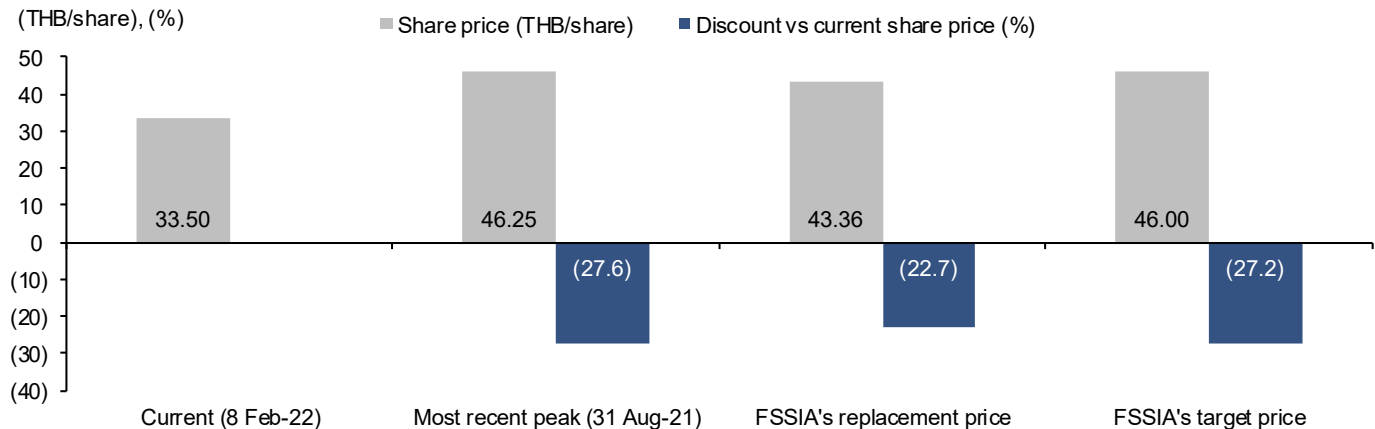
	4Q20	3Q21	----- 4Q21E -----		
	(THB m)	(THB m)	(THB m)	(q-q%)	(y-y%)
<b>Revenue</b>	<b>10,435</b>	<b>11,714</b>	<b>12,819</b>	<b>9.4</b>	<b>22.8</b>
Operating costs	(7,328)	(8,635)	(10,078)	16.7	37.5
EBITDA	3,107	3,079	2,741	(11.0)	(11.8)
<b>EBITDA margin (%)</b>	<b>29.8</b>	<b>26.3</b>	<b>21.4</b>	<b>nm</b>	<b>nm</b>
Depn & amort.	(1,383)	(1,305)	(1,346)	3.1	(2.7)
EBIT	1,724	1,774	1,395	(21.3)	(19.1)
Interest expense	(347)	(1,227)	(1,125)	(8.3)	223.9
Interest & invt inc	-	-	-	nm	nm
Other income	42	57	70	22.5	68.0
Associates' contrib	15	14	23	67.3	57.8
Exceptionals	(277)	43	152	256.5	(154.8)
<b>Pretax profit</b>	<b>1,156</b>	<b>661</b>	<b>515</b>	<b>(22.0)</b>	<b>(55.4)</b>
Tax	(100)	(55)	(38)	(31.0)	(61.9)
<i>Tax rate (%)</i>	<i>8.6</i>	<i>8.3</i>	<i>7.4</i>	<i>nm</i>	<i>nm</i>
Minority interests	(480)	(158)	(159)	0.5	(66.9)
<b>Net profit</b>	<b>576</b>	<b>447</b>	<b>318</b>	<b>(28.8)</b>	<b>(44.7)</b>
Non-recurring	60	(124)	40	(132.8)	(32.7)
<b>Core net profit</b>	<b>516</b>	<b>571</b>	<b>278</b>	<b>(51.3)</b>	<b>(46.1)</b>
EPS (THB)	0.22	0.17	0.12	(28.8)	(44.7)
Core EPS (THB)	0.20	0.22	0.11	(51.3)	(46.1)

Sources: BGRIM; FSSIA estimates

## Strong net profit growth post 2Q22 with deep discount valuations

**Why we think investors should Buy BGRIM now rather than later.** After its share price decline by 28% from THB46.25 on 31 Aug-21 down to THB33.5 on 8 Feb-22, we now believe BGRIM is highly attractive, based on four convictions for BGRIM's 2022E P/E valuation: 1) a 22.7% discount to our estimated replacement price of THB43.36; 2) a 27.2% discount to our SoTP-based target price of THB46; 3) a deep 45.7% discount to BGRIM's 4-year historical P/E average of 40x; and 4) an attractive 0.27x 2022E PEG.

### Exhibit 27: Share price as of 8 Feb 2022 (THB33.5), discount to FSSIA's replacement price, and SoTP-based target price



Sources: BGRIM; FSSIA estimates

**Conviction #1: 22.7% discount to the replacement value of THB43.4.** At the closing share price of THB33.5 on 8 Feb-22, we believe BGRIM is now attractive, trading at a 22.7% discount to our estimated replacement value of THB43.4, based on the following assumptions: a THB60m/MW replacement cost for SPPs, THB20m/MW for solar farms, THB90m/MW for hydropower plants, and THB45m/MW for wind farms.

### Exhibit 28: Replacement value

	Capacity (MW)	Stake (%)	Equity Capacity (MW)	Investment (THB m)	Investment (Equity) (THB m)	Replacement (THB m/MW)	Replacement (THB m)	Replacement (Equity) (THB m)	Replacement (Equity) (THB/share)
Amata Nakorn (ABP1-5)	732	38	277	33,635	12,728	60	43,920	16,620	6.4
ABP1&2 and BPLC1	420	51	214	12,300	6,273	60	25,200	12,852	4.9
Amata City (ABPR1-5)	646	58	375	29,384	17,057	60	38,760	22,500	8.6
Leam Chabang (BPLC1-2)	159	100	159	5,300	5,300	60	9,540	9,540	3.7
Bangkadi (BIP1-2)	230	74	170	9,741	7,200	60	13,800	10,200	3.9
SPP1	124	100	124	5,400	5,400	60	7,440	7,440	2.9
Amata City Bien Hoa	13	31	4	650	200	60	780	240	0.1
Hemraj	130	75	98	6,132	4,623	60	7,800	5,880	2.3
BGPR1&2	240	60	144	12,000	7,200	60	14,400	8,640	3.3
Solar Vietnam (Dau Tieng)	420	51	214	12,600	6,426	20	8,400	4,284	1.6
Solar Vietnam (Hoa Hoi)	257	80	206	7,710	6,168	20	5,140	4,112	1.6
Solar Thailand	115	52	60	4,608	2,404	20	2,300	1,200	0.5
Hydropower	133	71	95	11,368	8,120	90	11,970	8,550	3.3
Wind	16	94	15	1,280	1,200	45	720	675	0.3
Solar Cambodia	39	100	15	1,170	1,170	20	780	300	0.1
<b>Total</b>	<b>3,674</b>	<b>65</b>	<b>2,170</b>	<b>153,278</b>	<b>91,469</b>	<b>52</b>	<b>190,950</b>	<b>113,033</b>	<b>43.4</b>

Sources: BGRIM; FSSIA estimates

**Conviction #2: A 27.2% discount to our SoTP-based target price of THB46.** We believe our revised SoTP-based target price of THB46, which is down from our previous TP of THB58, is conservative as 1) we increase our beta from 0.8x to 1.0x to reflect BGRIM's higher risk from its SPP operations and margins, resulting in a higher WACC from 4.7% to 5.7%; and 2) we lower our EPS forecast in 2021 to reflect our higher gas cost assumptions for 2021-23.

### Exhibit 29: SoTP-based target price

Cost of equity assumptions		(%)	Cost of debt assumptions		(%)
Risk free rate		2.3	Pretax cost of debt		4.6
Market risk premium		8.0	Marginal tax rate		20.0
Stock beta		1.00			
Cost of equity, Ke		10.3	Net cost of debt, Kd		3.7
Weight applied		30.4	Weight applied		69.6
WACC (%)		5.7			

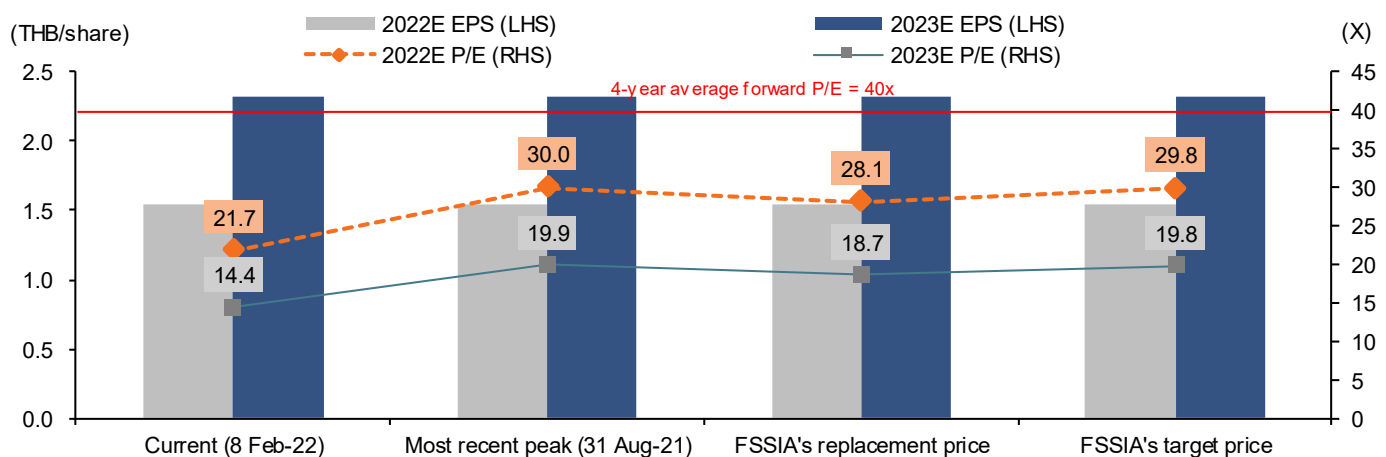
  

DCF valuation estimate		(MW)	(%)	Equity Capacity	(THB/share)	Comments
SPP	Amata Nakorn (ABP1-5)	732	38	277	5.6	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	ABP1&2 and BPLC1	420	51	214	8.1	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	Amata City (ABPR1-5)	646	58	375	23.0	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	Leam Chabang (BPLC1-2)	159	100	159	2.4	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	Bangkadi (BIP1-2)	230	74	170	3.1	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	SPP1	124	100	124	8.7	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	Amata City Bien Hoa	13	31	4	0.1	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	Hemraj	130	75	98	4.6	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	BGPR1&2	240	60	144	8.5	WACC 5.7%, Risk free rate 2.3%, Risk premium 8%
	Solar Vietnam (Dau Tieng)	420	51	214	2.7	WACC 6%, Risk free rate 5%, Risk premium 7.5%
	Solar Vietnam (Hoa Hoi)	257	80	206	2.6	WACC 6%, Risk free rate 5%, Risk premium 7.5%
	VSP	Solar Thailand	115	52	60	1.1
Hydropower		133	71	95	0.9	WACC 4.9%, Risk free rate 5%, Risk premium 8%
Wind		16	94	15	0.4	WACC 4.9%, Risk free rate 5%, Risk premium 8%
Solar Cambodia		39	100	15	1.4	WACC 4.9%, Risk free rate 5%, Risk premium 8%
Net debt					(27.0)	
<b>Residual ordinary equity</b>					<b>46.0</b>	

Sources: BGRIM; FSSIA estimates

**Conviction #3: A deep 45.7% discount to BGRIM's 4-year historical P/E average of 40x.** Since its initial public offering in Jul-17, BGRIM's share price has been trading at an average 1-year forward P/E of 40x, and its current forward P/E, based on 2022E EPS, is now at a historically low level of only 21.7x P/E, which we think is highly unjustified against the strong net profit growth of 80% y-y that we project in 2022.

### Exhibit 30: Estimated forward P/E under different price scenarios

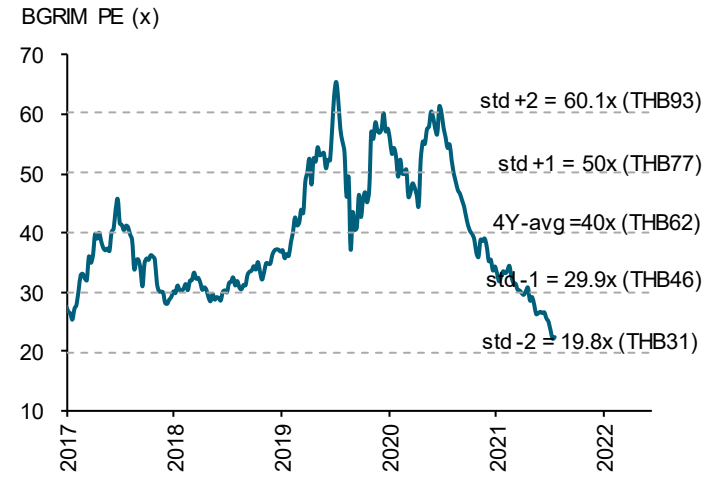


Sources: BGRIM; FSSIA estimates; Bloomberg

**Conviction #4: An attractive 0.27x 2022E PEG.** BGRIM's medium-term net profit growth outlook that we estimate at 80% y-y in 2022 and 51% y-y in 2023 is strong, driven by over 0.5GW of equity capacity growth from seven SPPs with high margins as a result of the more efficient gas turbine technology and a higher proportion of IU sales at over 75% of the total electricity sales volume and steam sales volume sold to IUs.

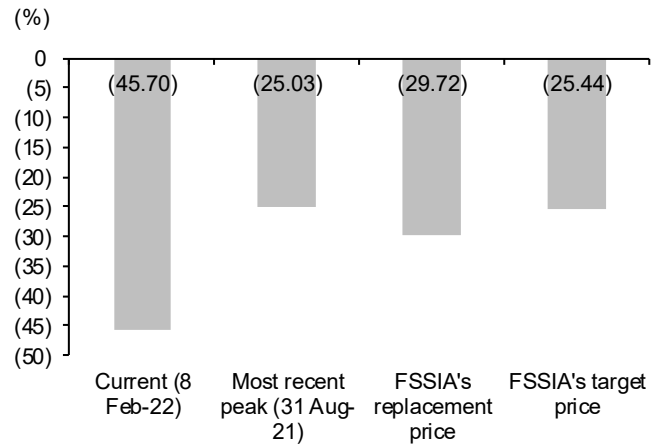
As we project the gas price in Thailand to gradually and structurally decline starting from 2Q22 onward, we believe the current pressure from the gas price hike will significantly subside once the gas production from G1 (formerly Erawan) improves to reach its contract sales volume of 800mmscfd, up from 250mmscfd in 2Q22.

**Exhibit 31: Forward P/E**



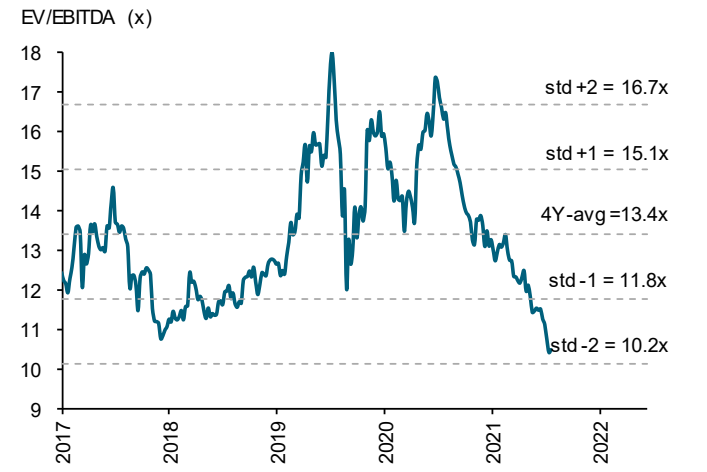
Sources: Bloomberg; FSSIA estimates

**Exhibit 32: P/E valuation discount scenarios**



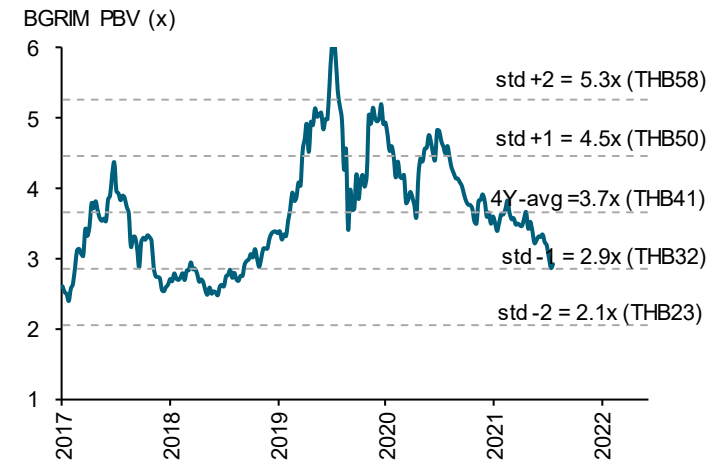
Sources: BGRIM; FSSIA estimates

**Exhibit 33: EV/EBITDA band**



Sources: Bloomberg; FSSIA estimates

**Exhibit 34: PB/V band**



Sources: Bloomberg; FSSIA estimates



We cut our EPS forecast by 22.7% in 2021 to reflect the increase in our gas cost estimates by 35.9%. However, we raise our EPS forecasts in 2022-23 by 0.9-1.4% to reflect our higher utilisation rate and average electricity tariff assumptions. We think the government will eventually allow the electricity tariff to increase in 2022-23 to catch up with the rise in the gas cost to effectively alleviate the financial burden for EGAT during the period of the government's "subsidised" tariff, which prohibits any increases or slowly increases the tariff to help the public at the expense of the power producers, including EGAT and SPPs.

### Exhibit 35: Key changes in assumptions

	Current			Previous			Change		
	2021E (THB m)	2022E (THB m)	2023E (THB m)	2021E (THB m)	2022E (THB m)	2023E (THB m)	2021E (%)	2022E (%)	2023E (%)
Revenue	56,461	66,555	80,818	49,101	57,471	69,843	15.0	15.8	15.7
Gross profit	14,625	18,762	23,578	15,660	18,745	23,414	(6.6)	0.1	0.7
Operating profit	7,070	10,619	14,322	8,378	10,938	14,564	(15.6)	(2.9)	(1.7)
Net profit	2,229	4,021	6,053	2,882	3,966	5,998	(22.7)	1.4	0.9
EPS (THB/share)	0.9	1.5	2.3	1.1	1.5	2	(22.7)	1.4	0.9
<b>Key assumptions</b>									
Utilisation rate (%)	90	92	93	88	90	90	2.3	2.2	3.3
Dispatched power (gwh)	11,132	12,778	11,504	11,132	12,778	11,504	0.0	0.0	0.0
Oil price (USD/bbl)	75	70	70	55	50	50	36.4	40.0	40.0
Average tariff (THB/KWh)	3.12	3.31	3.47	2.76	2.70	3	13.0	22.5	24.0
Gas price (THB/mmbtu)	304	295	286	224	217	210	35.9	35.9	35.9

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

Sources: BGRIM; FSSIA estimates

## Financial Statements

### B.Grimm Power

Profit and Loss (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Revenue	44,132	44,087	56,461	66,555	80,818
Cost of goods sold	(31,293)	(29,354)	(41,836)	(47,793)	(57,240)
<b>Gross profit</b>	<b>12,839</b>	<b>14,733</b>	<b>14,625</b>	<b>18,762</b>	<b>23,578</b>
Other operating income	-	-	-	-	-
Operating costs	(1,865)	(2,039)	(2,089)	(2,463)	(2,990)
<b>Operating EBITDA</b>	<b>10,974</b>	<b>12,694</b>	<b>12,536</b>	<b>16,300</b>	<b>20,588</b>
Depreciation	(4,660)	(5,494)	(5,466)	(5,681)	(6,266)
Goodwill amortisation	0	0	0	0	0
<b>Operating EBIT</b>	<b>6,314</b>	<b>7,200</b>	<b>7,070</b>	<b>10,619</b>	<b>14,322</b>
Net financing costs	(2,493)	(3,520)	(3,050)	(2,993)	(3,203)
Associates	101	58	220	224	228
Recurring non-operating income	493	751	420	424	428
Non-recurring items	(102)	(442)	0	0	0
<b>Profit before tax</b>	<b>4,212</b>	<b>3,989</b>	<b>4,440</b>	<b>8,050</b>	<b>11,547</b>
Tax	(235)	(233)	(181)	(403)	(694)
<b>Profit after tax</b>	<b>3,977</b>	<b>3,755</b>	<b>4,259</b>	<b>7,647</b>	<b>10,853</b>
Minority interests	(1,646)	(1,581)	(2,030)	(3,627)	(4,800)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
<b>Reported net profit</b>	<b>2,331</b>	<b>2,175</b>	<b>2,229</b>	<b>4,021</b>	<b>6,053</b>
<b>Non-recurring items &amp; goodwill (net)</b>	<b>102</b>	<b>442</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Recurring net profit</b>	<b>2,433</b>	<b>2,617</b>	<b>2,229</b>	<b>4,021</b>	<b>6,053</b>
<b>Per share (THB)</b>					
Recurring EPS *	0.93	1.00	0.85	1.54	2.32
Reported EPS	0.89	0.83	0.85	1.54	2.32
DPS	0.37	0.37	0.40	0.80	1.00
Diluted shares (used to calculate per share data)	2,607	2,607	2,607	2,607	2,607
<b>Growth</b>					
Revenue (%)	20.6	(0.1)	28.1	17.9	21.4
Operating EBITDA (%)	22.5	15.7	(1.2)	30.0	26.3
Operating EBIT (%)	16.0	14.0	(1.8)	50.2	34.9
Recurring EPS (%)	32.1	7.6	(14.8)	80.4	50.6
Reported EPS (%)	25.1	(6.7)	2.5	80.4	50.6
<b>Operating performance</b>					
Gross margin inc. depreciation (%)	18.5	21.0	16.2	19.7	21.4
Gross margin of key business (%)	18.5	21.0	16.2	19.7	21.4
Operating EBITDA margin (%)	24.9	28.8	22.2	24.5	25.5
Operating EBIT margin (%)	14.3	16.3	12.5	16.0	17.7
Net margin (%)	5.5	5.9	3.9	6.0	7.5
Effective tax rate (%)	5.7	5.9	4.3	5.2	6.1
Dividend payout on recurring profit (%)	39.6	36.9	46.8	51.9	43.1
Interest cover (X)	2.7	2.3	2.5	3.7	4.6
Inventory days	11.4	12.4	10.9	12.0	11.8
Debtor days	54.9	57.8	44.1	37.4	30.8
Creditor days	139.0	148.6	59.7	65.8	64.4
Operating ROIC (%)	7.9	7.8	6.4	8.6	10.4
ROIC (%)	6.9	6.9	5.5	7.4	9.0
ROE (%)	10.3	9.4	7.9	13.3	18.0
ROA (%)	5.5	5.6	5.2	7.5	9.1
* Pre-exceptional, pre-goodwill and fully diluted					
<b>Revenue by Division (THB m)</b>					
Electricity generation	44,128	44,087	56,461	66,555	80,818
Others business	4	0	0	0	0

Sources: B.Grimm Power; FSSIA estimates

## Financial Statements

B.Grimm Power

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Recurring net profit	2,433	2,617	2,229	4,021	6,053
Depreciation	4,660	5,494	5,466	5,681	6,266
Associates & minorities	101	58	220	224	228
Other non-cash items	-	-	-	-	-
Change in working capital	11,276	(12,068)	1,670	699	1,149
<b>Cash flow from operations</b>	<b>18,470</b>	<b>(3,898)</b>	<b>9,584</b>	<b>10,624</b>	<b>13,696</b>
Capex - maintenance	(100)	(101)	(100)	(100)	(100)
Capex - new investment	(14,341)	(13,562)	(16,900)	(17,900)	(17,900)
Net acquisitions & disposals	(272)	(465)	0	0	0
Other investments (net)	(959)	815	220	224	228
<b>Cash flow from investing</b>	<b>(15,672)</b>	<b>(13,313)</b>	<b>(16,780)</b>	<b>(17,776)</b>	<b>(17,772)</b>
Dividends paid	(965)	(965)	(965)	(1,043)	(2,086)
Equity finance	0	0	0	0	0
Debt finance	(2,494)	15,230	(10,745)	8,000	2,000
Other financing cash flows	9,144	(328)	1,589	3,178	4,345
<b>Cash flow from financing</b>	<b>5,685</b>	<b>13,938</b>	<b>(10,120)</b>	<b>10,136</b>	<b>4,259</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>8,483</b>	<b>(3,274)</b>	<b>(17,316)</b>	<b>2,983</b>	<b>183</b>
Free cash flow to firm (FCFF)	5,428.45	(14,024.75)	(4,145.28)	(4,159.51)	(873.67)
Free cash flow to equity (FCFE)	9,447.90	(2,308.98)	(16,351.62)	4,026.21	2,268.15

### Per share (THB)

FCFF per share	2.08	(5.38)	(1.59)	(1.60)	(0.34)
FCFE per share	3.62	(0.89)	(6.27)	1.54	0.87
Recurring cash flow per share	2.76	3.13	3.04	3.81	4.81

Balance Sheet (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Tangible fixed assets (gross)	100,752	114,469	131,469	149,469	167,469
Less: Accumulated depreciation	(28,620)	(34,169)	(39,635)	(45,315)	(51,581)
<b>Tangible fixed assets (net)</b>	<b>72,132</b>	<b>80,300</b>	<b>91,835</b>	<b>104,154</b>	<b>115,888</b>
<b>Intangible fixed assets (net)</b>	<b>10,908</b>	<b>12,949</b>	<b>12,949</b>	<b>12,949</b>	<b>12,949</b>
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	1,535	1,070	1,070	1,070	1,070
Cash & equivalents	23,663	20,389	3,074	6,058	6,241
A/C receivable	7,156	6,818	6,818	6,818	6,818
Inventories	969	1,033	1,472	1,682	2,014
Other current assets	1,706	1,638	2,098	2,473	3,003
<b>Current assets</b>	<b>33,493</b>	<b>29,879</b>	<b>13,463</b>	<b>17,031</b>	<b>18,076</b>
Other assets	3,625	6,498	6,498	6,498	6,498
<b>Total assets</b>	<b>121,693</b>	<b>130,696</b>	<b>125,814</b>	<b>141,702</b>	<b>154,482</b>
Common equity	28,144	27,470	28,734	31,712	35,680
Minorities etc.	10,533	11,834	13,864	17,491	22,290
<b>Total shareholders' equity</b>	<b>38,677</b>	<b>39,304</b>	<b>42,598</b>	<b>49,203</b>	<b>57,970</b>
Long term debt	55,596	57,256	57,256	67,256	67,256
Other long-term liabilities	1,588	7,143	7,143	7,143	7,143
<b>Long-term liabilities</b>	<b>57,184</b>	<b>64,399</b>	<b>64,399</b>	<b>74,399</b>	<b>74,399</b>
A/C payable	18,254	5,641	8,040	9,184	11,000
Short term debt	7,175	20,745	10,000	8,000	10,000
Other current liabilities	403	607	777	916	1,112
<b>Current liabilities</b>	<b>25,832</b>	<b>26,993</b>	<b>18,817</b>	<b>18,100</b>	<b>22,112</b>
<b>Total liabilities and shareholders' equity</b>	<b>121,693</b>	<b>130,696</b>	<b>125,814</b>	<b>141,702</b>	<b>154,482</b>
Net working capital	(8,826)	3,242	1,572	873	(276)
Invested capital	79,374	104,059	113,923	125,544	136,129

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

### Per share (THB)

Book value per share	10.80	10.54	11.02	12.16	13.69
Tangible book value per share	6.61	5.57	6.06	7.20	8.72

### Financial strength

Net debt/equity (%)	101.1	146.6	150.7	140.6	122.5
Net debt/total assets (%)	32.1	44.1	51.0	48.8	46.0
Current ratio (x)	1.3	1.1	0.7	0.9	0.8
CF interest cover (x)	10.5	4.2	1.2	8.3	7.3

Valuation	2019	2020	2021E	2022E	2023E
<b>Recurring P/E (x) *</b>	<b>35.9</b>	<b>33.4</b>	<b>39.2</b>	<b>21.7</b>	<b>14.4</b>
<b>Recurring P/E @ target price (x) *</b>	<b>49.3</b>	<b>45.8</b>	<b>53.8</b>	<b>29.8</b>	<b>19.8</b>
Reported P/E (x)	37.5	40.2	39.2	21.7	14.4
Dividend yield (%)	1.1	1.1	1.2	2.4	3.0
Price/book (x)	3.1	3.2	3.0	2.8	2.4
Price/tangible book (x)	5.1	6.0	5.5	4.7	3.8
EV/EBITDA (x) **	12.5	12.4	13.2	10.7	8.8
EV/EBITDA @ target price (x) **	15.5	14.9	15.8	12.7	10.4
EV/invested capital (x)	1.7	1.5	1.5	1.4	1.3

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

Sources: B.Grimm 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	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	PCSGH	PDJ	PG	PHOL	PLANB	PLANET
PLAT	PORT	PPS	PR9	PREB	PRG	PRM	PSH	PSL	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QTC	RATCH	RS	S	S & J	SAAM
SABINA	SAMART	SAMTEL	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SDC
SEAFCO	SEAOIL	SE-ED	SELIC	SENA	SIRI	SIS	SITHAI	SMK	SMPC	SNC
SONIC	SORKON	SPALI	SPI	SPRC	SPVI	SSSC	SST	STA	SUSCO	SUTHA
SVI	SYMC	SYNTEC	TACC	TASCO	TCAP	TFMAMA	THANA	THANI	THCOM	THG
THIP	THRE	THREL	TIP	TIPCO	TISCO	TK	TKT	TTB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	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	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, CFA, FRM, ERP FSS International Investment Advisory Securities Co., Ltd

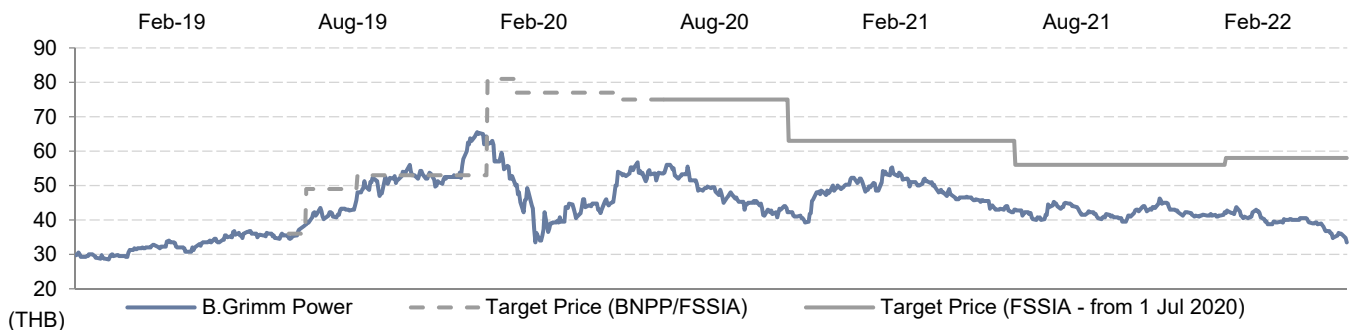
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

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**History of change in investment rating and/or target price**

**B.Grimm Power (BGRIM TB)**



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
13-Aug-2019	BUY	36.00	31-Jan-2020	BUY	81.00	15-Oct-2020	BUY	63.00
28-Aug-2019	BUY	49.00	25-Feb-2020	BUY	77.00	28-Apr-2021	BUY	56.00
11-Oct-2019	BUY	53.00	22-May-2020	BUY	75.00	26-Oct-2021	BUY	58.00

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

Price and TP are in local currency

Source: FSSIA estimates

**PTT PCL (PTT TB)**



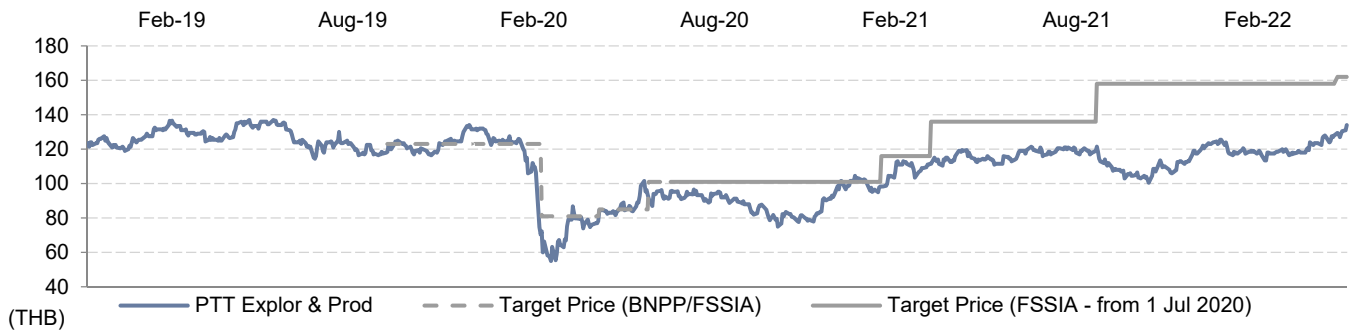
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
21-Feb-2020	BUY	60.00	-	-	-	-	-	-

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 12-May-2020

Price and TP are in local currency

Source: FSSIA estimates

## PTT Explor &amp; Prod (PTTEP TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
29-Oct-2019	HOLD	123.00	30-Apr-2020	BUY	85.00	11-Feb-2021	BUY	136.00
11-Mar-2020	HOLD	81.00	12-Jun-2020	BUY	101.00	05-Jul-2021	BUY	158.00
26-Mar-2020	BUY	81.00	30-Dec-2020	BUY	116.00	28-Jan-2022	BUY	162.00

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 12-Jun-2020

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
B.Grimm Power	BGRIM TB	THB 33.50	BUY	The downside risks to our SoTP-based TP include 1) lower-than-expected demand for electricity in Thailand, 2) a lower crude price, and 3) unplanned shutdowns of its SPPs.
PTT PCL	PTT TB	THB 40.25	BUY	Risks to our SoTP-based valuation are the oil price and potential earnings downside from government intervention.
PTT Explor & Prod	PTTEP TB	THB 134.00	BUY	Risks our TP, which is based on EV/EBITDA, are a sharp decline in oil price and a potential earnings downside from government intervention.

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 08-Feb-2022 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.