

Thailand Power Sector

Renewables drive growth

NEUTRAL

Initiate power sector with GULF as Top Pick

We have a Neutral view on Thailand's power sector as we expect 1) natural gas prices to gradually normalise, 2) no more fuel tariff (Ft) rate cuts after recent cuts. This could see the spark spread and margin widen in FY24E. We also see sizable renewable energy tenders of 17-29GW in 2023-37. But we do not rate the sector Positive as uncertainty on government policy and a rising Thai long-term bond yield could squeeze valuations. GULF is our top sector pick for its earnings resilience to external factors, potential upside risk from renewable energy (RE) tenders, strong quarterly core profit growth, and the highest ROE among peers.

Expect spark spread to widen in FY24

We expect the spark spread to contract in 3Q23-1Q24 before gradually recovering from late-1Q24. We expect the THB3.99/kWh power tariff cut in Sep-Dec 2023 to be the last for a while and that the Ft rate will likely be flat for two years (2024-25). This is based on our expectation that the public is satisfied with the current subsidised electricity price while the Electricity Generating Authority of Thailand's (EGAT) past subsidy burden still needs to be repaid. We also expect the natural gas pool price to gradually drop to the pre-2022 level as the Erawan gas field reaches full capacity and amid falling global prices. Still, uncertainty over government policy could remain an overhang for power operators.

Potentially large RE capacity tender in new PDP

We expect the new Power Development Plan (PDP) to call for new renewable energy capacity of at least 17GW in 2023-37. However, this could be up to 29GW if Thailand chooses to follow the International Energy Authority's (IEA) roadmap to Net Zero 2050 which calls for the renewable energy portion to reach 59%/77% in 2030/35 compared to 34% this year. We also believe the new PDP that becomes effective by late-2023 will not add any more conventional electricity generating capacity and that it will shutter gas/coal power plants that reach retirement age given an already high reserve margin of over 50%.

GULF top sector pick

GULF is our top sector pick as it has the most resilient earnings to changes in external factors given its cost pass-through mechanism. We believe GULF is also the biggest potential beneficiary of future renewable energy tenders. In addition, we expect GULF to deliver the highest ROE among its peers of 8.5-12.0% in 2023-30E. Lastly, we expect its quarterly core profit to continue to hit new highs at least in the next four quarters. This should be a near-term catalyst for the stock.

Analyst

Natchaphon Rodjanarowan
(66) 2658 5000 ext 1393
Natchaphon.rodjanarowan@maybank.com

Abbreviations used in this report

Ft - Fuel tariff, or adjustment charge. A variable fee imposed on electricity users designed to reflect cost of fuel used by power plants.
Spark spread - the spread between power tariff per kWh vs. gas cost per kWh
RE - Renewable Energy
PDP - Power Development Plan
EGAT - Electricity Generating Authority of Thailand
ERC - Energy Regulatory Committee
LNG - Liquid natural gas
IPP - Independent Power Producer
SPP - Small Power Producer
GW - Gigawatt
GWe - Equity Gigawatt
GWh - Gigawatt hour
MW - Megawatt
MWe - Equity Megawatt
MWh - Megawatt hour
kW - Kilowatt
kWh - Kilowatt hour

Details of other companies in this report

PTT PCL (PTT, CP THB31.75, not rated)
Ratchaburi Energy Generating (RATCH TB, CP THB31, not rated)
Avaada Energy Private Limited (AEPL, not listed)
Energy Absolute PCL (EA, CP THB49, not rated)

Stock	Bloomberg code	Mkt cap (USD'm)	Rating	Price (LC)	TP (LC)	Upside (%)	P/E (x)		P/B (x)		Div yld (%)	
							23E	24E	23E	24E	23E	24E
Gulf Energy	GULF TB	13,676	Buy	43.25	56.25	32	33.4	29.9	4.3	4.1	1.8	2.1
Global Power	GPSC TB	3,173	Buy	41.75	57.75	44	40.9	20.8	1.1	1.0	1.3	2.7
B.Grimm Power	BGRIM TB	1,809	Hold	25.75	26.75	5	30.3	30.5	2.2	2.1	1.6	2.0

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1. Expect higher spark spread next year

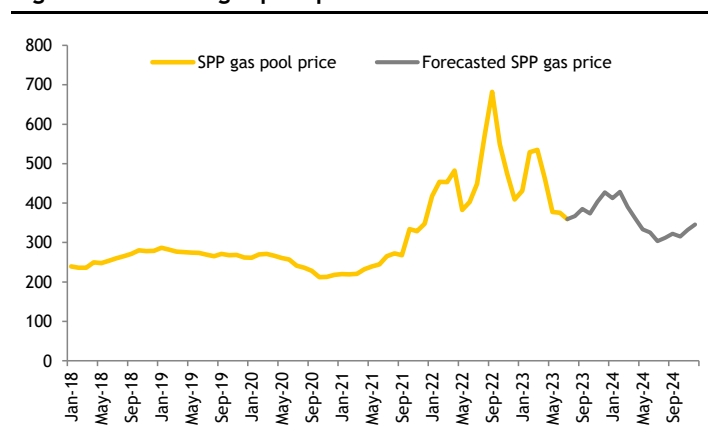
1.1 Gas price likely to pick up for northern Winter before normalising next year

Historical gas pool price

PTT is the sole operator of the natural gas system in Thailand, including for LNG imports, and as a domestic off-taker for both Thailand and Myanmar production, and distribution to end users. Natural gas is the main fuel source for power plants in Thailand as it accounts for 63% of all electricity production. Given PTT's dominance in the natural gas supply chain, all consumers of natural gas purchase it from PTT. The 'pool price' of natural gas is the regulated price and it is an aggregate of prices from three sources: domestic Gulf gas, Myanmar gas, and imported LNG.

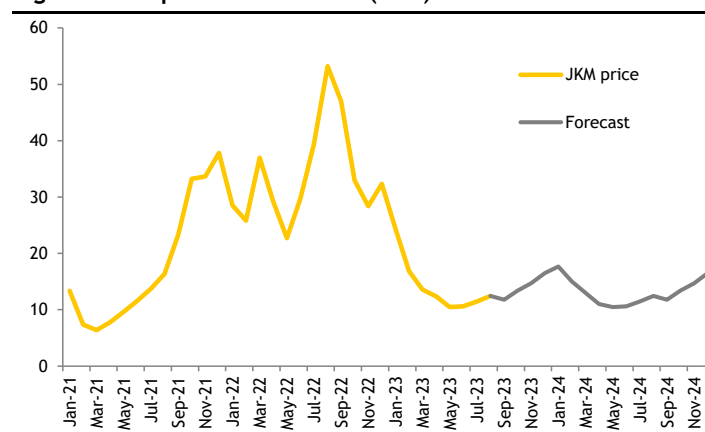
In 2022, the natural gas pool price surged from the 2018-21 average of THB260/mmbtu to the 2022 average of THB477/mmbtu as concern over an LNG supply shortage stemming from the Russia-Ukraine war drove up global LNG prices; the JKM benchmark price jumped by 89%, from USD17.9/mmbtu in 2021 to USD33.9/mmbtu in 2022 (peaked at USD53.2/mmbtu in Aug 2022). Second, a domestic natural gas shortage from the changeover in the operation of the Erawan Field resulted in lower domestic production and the need for a higher proportion of imported LNG in the natural gas pool.

Fig 1: SPP natural gas pool price



Source: EPPO, MST

Fig 2: LNG Japan/Korea Market (JKM)



Source: Investing.com, CME group, MST

Expect downtrend in natural gas pool prices next year

Since March 2023, concern over the Russia-Ukraine war has eased, leading to a decline in the JKM price from a peak of USD53.2/mmbtu in Aug 2022 to USD12.4/mmbtu in Aug 2023. At the same time, the Erawan Gas Field is showing a higher natural gas production rate, which has led to a decline in LNG imports. These factors drove the natural gas pool price from a peak of THB682/mmbtu in Sep 2022 down to THB359/mmbtu in July 2023. We project the natural gas pool price to rise slightly in late-2023 on expectations of higher imported LNG prices owing to 1) global high seasonality (Winter) and the El Nino effect. Still, we believe prices this Winter should be much lower than the levels observed at the same time last year. As of 12 Sep, the JKM futures from the CME group for Oct-Dec 2023 showed a mild uptrend from USD13.4/mmbtu in Oct 2023 to USD16.5/mmbtu. Therefore, we estimate the natural gas pool price to gradually increase to THB394/mmbtu in Dec 2023, resulting in an average 2023 natural gas pool price of THB418/mmbtu, down 12% YoY.

After this high season, we expect the natural gas pool price to gradually decline to the pre-2022 level on the back of 1) full natural gas production rate from Erawan field, and 2) abating supply concerns stemming from the Russia-Ukraine war. As a result, we forecast 2024-25E SPP natural gas pool prices of THB360/mmbtu and THB305/mmbtu, respectively.

1.2 Likely no more Ft rate cut after this round

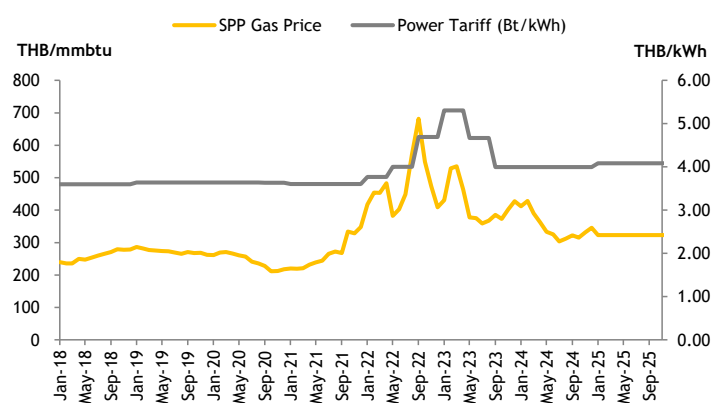
Subsidy risk for power tariff

While the natural gas pool price surged in 2022, the Ft rate remained low as the government cushioned the impact of the high energy cost environment in 2022 through subsidies causing a mismatch between power costs and power selling prices which effectively transferred the burden to the Electricity Generating Authority of Thailand (EGAT).

The Energy Regulatory Committee (ERC) started to lift the Ft rate for first time in the 3rd round of adjustment in 2022 (Sep-Dec 2022) by THB0.69/kWh, and subsequently lifted the Ft rate in the 1st round of 2023 (Jan-Apr 2023) by THB0.61/kWh, resulting in a power tariff of THB5.3/kWh to reflect the high natural gas pool price and to help repay EGAT's burden. However, the Ft rate started to drop after the natural gas pool price reversed direction and for political reasons following the general election.

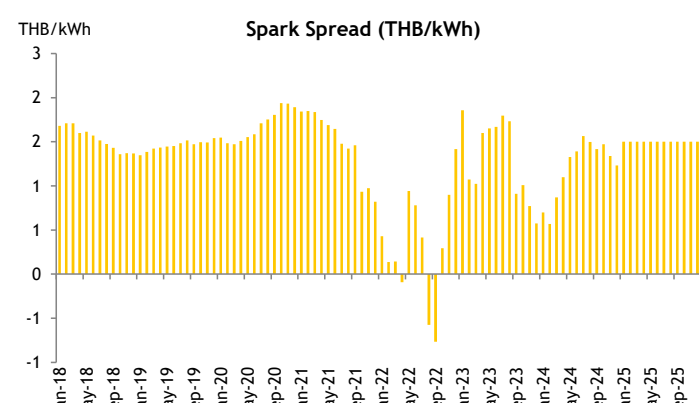
One of the main policies of the new Thai government is to lower power tariffs. The current Ft rate (Sep-Dec 2023) is THB0.67/kWh. The Cabinet has agreed to decrease the current Ft rate by THB0.43/kWh, resulting in a power tariff of THB3.99/kWh, effective Sep-Dec 2023. This will directly impact SPP operators, BGRIM and GPSC.

Fig 3: SPP gas price (mmbtu) vs. power tariff



Source: EPPO, MST

Fig 4: Spark spread (gas cost per kWh vs. power tariff)



Source: Investing.com, CME group, MST

Expect Ft rate to remain at this level

We expect the decrease in the power tariff to THB3.99/kWh to be the last for the time-being and the Ft rate will now be flat for the next two years (2024-25) due to 1) our expectation that the population could be satisfied with this low power tariff vs. the early-2023 power tariff of THB4.7/kWh, and 2) EGAT's burden of over THB100bn which needs to be repaid in the future. As a result, we expect the spark spread (spread between power tariff and gas cost per kWh) to contract during 3Q23-1Q24 before gradually recovering from late-1Q24 onwards. Note that EGAT had long-term loans of THB237bn at end-2Q23 vs a normal level of only THB109bn at end-2020, which means EGAT's burden is currently around THB128bn. We believe 1) EGAT's loss is already very large and cannot get much bigger, 2) EGAT will need to earn this deficit back at some point in the future.

Note that Thailand's power tariff consists of 1) Base tariff of THB3.76/kWh, and 2) Ft rate. The Ft rate is a Fuel Adjustment Charge, which is a variable factor of the ERC subject to change that is designed to reflect the energy cost of electricity production.

Fig 5: Historical and forecast Ft rate

	2019			2020			2021			2022		
	Jan-Apr	May-Aug	Sep-Dec	Jan-Apr	May-Aug	Sep-Dec	Jan-Apr	May-Aug	Sep-Dec	Jan-Apr	May-Aug	Sep-Dec
Base tariff	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76
Ft rate	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.15	-0.15	-0.15	0.01	0.25	0.93
Power tariff	3.64	3.64	3.64	3.64	3.64	3.64	3.60	3.60	3.60	3.77	4.00	4.69

	2023E			2024E			2025E			2026E		
	Jan-Apr	May-Aug	Sep-Dec E	Jan-Apr	May-Aug	Sep-Dec	Jan-Apr	May-Aug	Sep-Dec	Jan-Apr	May-Aug	Sep-Dec
Base tariff	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76
Ft rate	1.55	0.92	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.00	0.00	0.00
Power tariff	5.30	4.67	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.76	3.76	3.76

Source: ERC, MST

2. GULF likely biggest beneficiary of new PDP

2.1 Effective reserve capacity not as high as headline figure suggests

Thailand capacity break down

Thailand has current electricity capacity of 53,821 MW (as of May 2023) of which IPPs generate 31.6%, followed by EGAT at 31.4%, SPPs 17.4%, imports 11.6%, VSPP 7.9%, and others 0.01%. To address concerns about low reliability of renewable energy, we break down the capacity in terms of 1) conventional energy and 2) renewable energy. Within the 53,821 MW capacity, there is 1) 3,120 MW of renewable energy capacity from EGAT, 2) 4,459 MW renewable energy capacity from imports (hydropower), and 3) 4,322 MW renewable energy capacity from VSPP. As a result, there is renewable energy capacity of 12,179 MW which means the electricity capacity of conventional energy was at 41,641 MW.

Demand peaks when renewable power generation is lowest

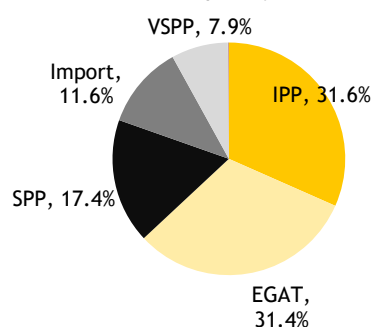
To capture domestic electricity demand, the industry typically looks at the all-time electricity demand peak. The most recent all-time peak occurred on 6 May 2023 at 9:41pm with a system demand peak of 34,826 MW. We notice that the date and time were quite unique this year as 1) 6 May is the low season for both hydropower and wind power, and 2) the time of 9:41PM is at nighttime when solar power cannot produce electricity.

Reserve margin, excluding renewable energy, is only 20%

Comparing Thailand's capacity and electricity system peak, the reserve margin of all capacity is at 55% above the system peak. This number seems high as there is plenty of excess capacity. However, the system peak occurred in May and at night as mentioned. This was a low period for all renewable energy generation (hydro and wind due to seasonality and solar due to time of day). As such, we believe some of the 53,821 MW capacity is non-reliable capacity as there was renewable energy of 12,179 MW. Excluding renewable energy capacity (RE), the reserve margin (excl. RE) is at 20% which we believe is within a normal range of 15-20%.

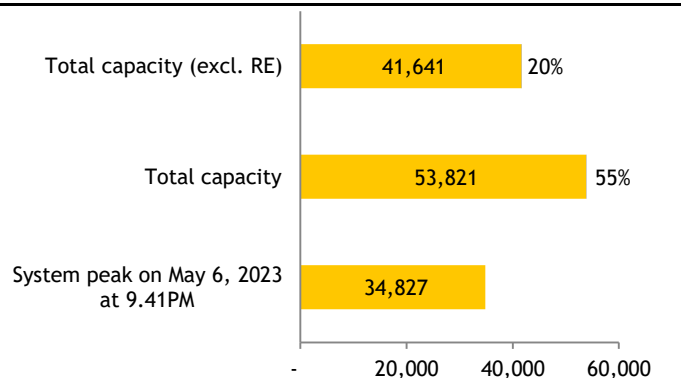
Fig 6: Thailand electricity capacity breakdown (May 2023)

Total Installed capacity of 53,821 MW



Source: ERC, MST

Fig 7: Reserve margin



Source: ERC, EGAT, MST

2.2 Potential beneficiaries of PDP revision

PDP2018 rev.1

The Thai government relies on the Power Development Plan (PDP) for its long-term electricity system forecast and development. The plan determines potential demand growth, the size of capacity needed and the mix of generation types. The current PDP is the 2018 PDP revision1 (PDP2018rev1) which assumes system demand growth of 2.9% p.a., from 30,303 MW in 2017 to 53,997 MW in 2037. In terms of supply, there will be retirement capacity of 25,310 MW during 2018-37, and, given demand growth above, a plan to develop new capacity of 56,431 MW during the same period. The three highest proportions of new capacity is new renewable energy of 33% of total new capacity, followed by gas combined-cycle at 27%, and replacement plant capacity of 12%.

Fig 8: PDP2018 revision 1

PDP2018rev1	MW	New capacity	MW
Capacity on Dec 2017	46,090	Renewable	18,833
New capacity 2018-37	56,431	WTE	1,933
Retirement capacity	(25,310)	Waste heat	500
Total at end-2037	77,211	Co-gen	2,112
		Combine cycle	15,096
		Coal/Lignite	1,200
		Import	5,857
		Replacement	6,900
		ECM	4,000
		Total	56,431

Source: ERC, MST

Fig 9: PDP2018rev1 plan

PDP2018rev1	2018	2019	2020	2021	2022	2023	2024	2025	...	2030	...	2035	2036	2037
Gas	28,718	29,111	29,331	30,649	31,247	31,450	33,190	31,690		33,224		31,636	31,666	32,112
Coal	6,110	6,110	6,110	6,110	5,840	3,890	3,710	4,790		4,850		5,503	5,503	4,843
Fuel oil	320	320	320	320	320	320	320	320		320		5	5	5
Diesel	60	60	60	60	60	60	60	60		60		60	60	60
Malaysia	300	300	300	300	300	300	300	300		300		300	300	300
ECM	0	0	0	0	0	0	0	0		0		2,440	3,300	4,000
RE	12,496	14,936	15,823	16,529	17,966	18,488	18,826	18,687		24,116		34,062	35,551	35,892
Total	48,004	50,837	51,944	53,968	55,733	54,508	56,406	55,847	...	62,870	...	74,006	76,385	77,212
%RE	26.0%	29.4%	30.5%	30.6%	32.2%	33.9%	33.4%	33.5%		38.4%		46.0%	46.5%	46.5%

System peak	34,317	35,889	37,437	38,900	40,309	41,676	43,068	44,396	...	51,341	...	58,803	60,360	61,965
% growth		4.6%	4.3%	3.9%	3.6%	3.4%	3.3%	3.1%		2.9%		2.7%	2.6%	2.7%
% Reserve margin	40%	42%	39%	39%	38%	31%	31%	26%	...	22%	...	26%	27%	25%

Source: ERC, MST

Actual demand did not reach PDP's forecast

Thailand's domestic all-time system peak was at 34,827 MW in 2023 vs. 41,676 MW forecasted in the PDP2018rev1. We believe the gap comes from 1) the Covid-19 pandemic causing global economic activity to slowdown, dragging electricity consumption in the non-residential sector down by 6.7% in 2020, and 2) lower system load due to Independent Power Supply (IPS), power plants that produce electricity for own use or direct sale to its customers such as solar rooftop in industrial estates.

New PDP likely to contain no additional conventional capacity

As per a mismatch between the actual demand and PDP2018rev1's forecasted demand, the reserve margins are higher than 55%. With the high reserve margin, we expect the new PDP will not add any more conventional capacity and release gas/coal power plants that reach retirement age. Meanwhile, other types of power plants should not see significant change. As a result, the expected total capacity should be 56,037 MW in 2030 with reserve margin of 31%, and 62,503 MW in 2037 with reserve margin of 21%. Our expectation is for the new PDP to propose new renewable energy capacity of 17 GW during 2023-37. This should represent the potential upside for power operators to boost their long-term growth.

Potential additional RE from IEA's Net Zero 2050 roadmap

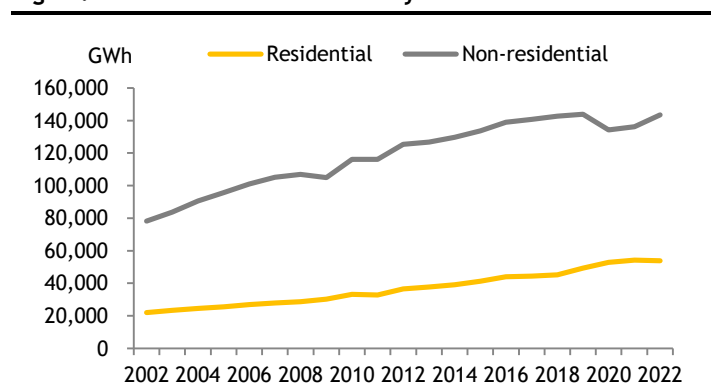
The International Energy Agency (IEA) argues that the path to Net Zero by 2050 and limiting global warming to 1.5C remains achievable thanks to growth in key clean energy technologies although the growth momentum needs to increase rapidly. The IEA outlined that share of renewables electricity generation should be 59%/77%/89% of total electricity generation by 2030/2035/2050, respectively. In the case Thailand chooses to adopt the IEA proposal, then the new PDP forecast could add another 12,649 MW of renewable energy on top of the existing plan by 2035. We see this as significant potential upside for power operators.

GULF could be the biggest beneficiary of RE tenders

We believe GULF could be the biggest beneficiary of new renewable energy capacity tenders in the future, which we expect will amount to 17-29 GW during 2023-35. GULF has had a highly successful track record in previous tender processes: 1) two IPPs totaling 5GW with 70% stakes, 2) Hinkong and Burapa IPPs with its partner, Ratchaburi Energy Generating (RATCH TB, CP THB31, not rated), with 49% and 35% stakes, respectively, 3) all three major hydropower plants totaling 3.1GW with average 33% stakes, and 4) the latest renewable energy capacity tender of 1.7GW (from total tender of 5GW) with a 100% stake.

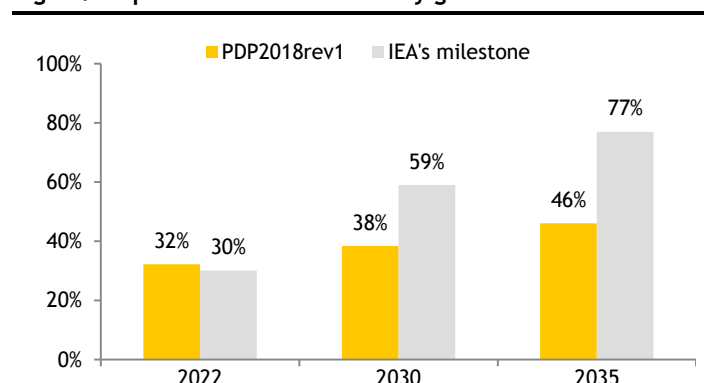
The Administrative Court on 29 Sep 2023 ordered a stop to renewable energy project tenders after 'Thepsathit Wind Farm', a subsidiary of Energy Absolute (EA), filed a lawsuit claiming that an ERC tender process may not have been legal. We believe this news will not affect the signing of GULF's most recent tender which was expected within Oct 2023. However, in the worst case, we believe the signing schedule may only be delayed. Note that we have not yet included the awarded MW from the latest tender in our forecast. As a result, there is no impact on our forecast.

Fig 10: 2002-22 Thailand electricity demand breakdown



Source: Company, MST

Fig 11: RE portion of total electricity generation



Source: IEA, ERC, MST

Fig 12: Expected new PDP plan

Expected PDP2023	2018	2019	2020	2021	2022	2023	2024	2025	...	2030	...	2035	2036	2037
Gas	28,718	29,111	29,331	30,649	31,247	31,450	33,190	31,750		28,281		23,184	22,514	22,246
Coal	3,885	3,886	3,887	3,888	3,889	3,890	3,710	2,900		2,960		613	613	0
Fuel oil	320	320	320	320	320	320	320	320		320		5	5	5
Diesel	60	60	60	60	60	60	60	60		60		60	60	60
Malaysia	300	300	300	300	300	300	300	300		300		300	300	300
ECM	0	0	0	0	0	0	0	0		0		2,440	3,300	4,000
RE	12,496	14,936	15,823	16,529	17,966	18,488	18,826	18,687		24,116		34,062	35,551	35,892
Total	45,779	48,613	49,721	51,746	53,782	54,508	56,406	54,017	...	56,037	...	60,664	62,343	62,503
%RE	27.3%	30.7%	31.8%	31.9%	33.4%	33.9%	33.4%	34.6%		43.0%		56.1%	57.0%	57.4%
IEA's RE proportion										59%		77%		
Potential new RE										8,946		12,649		
System peak	29,968	32,273	30,341	31,023	33,177	34,827	35,990	37,099	...	42,903	...	49,139	50,440	51,781
% Reserve margin	53%	51%	64%	67%	62%	57%	57%	46%	...	31%	...	23%	24%	21%

Source: Company, MST

3. Neutral view with GULF as Top Pick

Neutral sector view

We have a Neutral sector view on Thailand's power sector as 1) we expect natural gas prices to gradually decrease to normal levels (before Russia-Ukraine war levels), 2) we expect the Ft rate cut in Sep-Dec 2023 to be the final rate cut for the next two years as EGAT still has a burden to repay. This could lead to a widening of spark spreads. However, we do not rate the sector as Positive due to 1) uncertainty about the government's power sector policy in the future, and 2) the Thai 10-year bond yield is likely to increase to close the gap between the US and Thai 10-year bond yields.

GULF is our top sector pick

We choose GULF as our top sector pick because 1) GULF is most resilient to changes in natural gas prices and the Ft rate as most of its portfolio is based on a cost pass-through mechanism, 2) we expect GULF to providing outstanding ROE among its peers of 8.5-12.0% in 2023-30, and 3) we expect quarterly core profit to hit new highs at least in the next four quarters which should be a near-term catalyst.

3.1 GULF is most resilient

Different portfolio characteristics

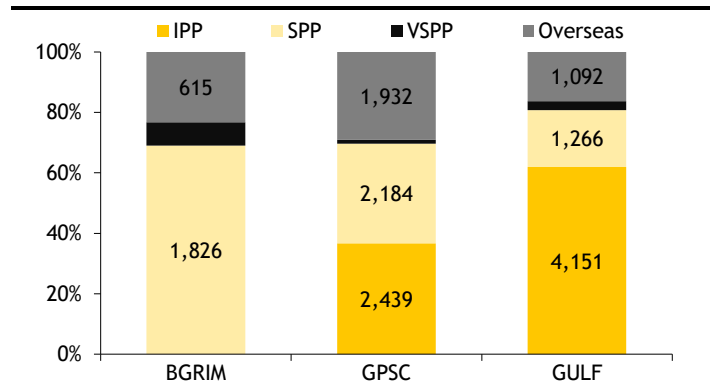
All of our initiation stocks, BGRIM GPSC and GULF, have different portfolio characteristics based on PPAs. BGRIM's portfolio concentrates on the SPP model with SPP capacity accounting for 69% of its end-2023 total equity capacity. On the flipside, GULF's portfolio focuses on the IPP model with IPP capacity accounting for 62% of its end-2023 total equity capacity. GPSC has a portfolio balance of each type of PPA as it has IPP capacity of 37% of its equity capacity, SPP 33% and overseas 29%.

GULF is the most resilient to external factors

We divide the revenues of each power operator into four types: 1) revenue from electricity sold to EGAT or related state enterprises, 2) revenue from electricity sold to industrial users (IU), 3) revenue from steam sold to industrial users, and 4) other revenue. The revenue from electricity sold to IU is the only source of revenue where the selling price does not normally rely on the energy price or cost of electricity production. The electricity selling price to IU is reliant on the retail tariff or base tariff plus the Ft rate.

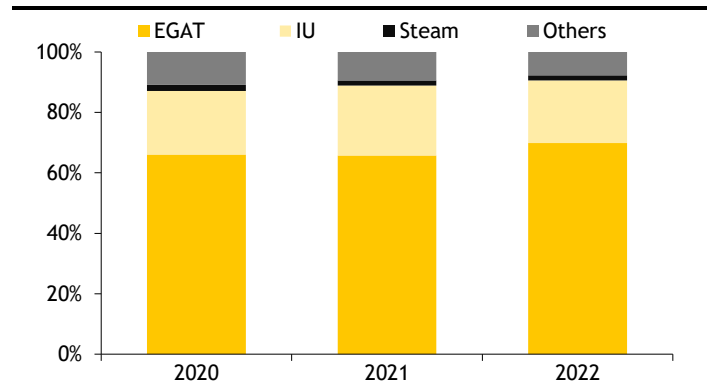
GPSC has the highest proportion of revenue from IU of 25-35%, followed by BGRIM at 20-23%, and GULF at only 10%. As a result, GPSC will likely be most impacted when the Ft rate decreases while other factors are constant. On the flip side, GULF will be the most resilient to external factors, such as the Ft rate and natural gas prices, as most of its revenue is based on cost pass-through contracts with 75% of its revenue dependent on electricity sold to EGAT.

Fig 13: Capacity breakdown comparison



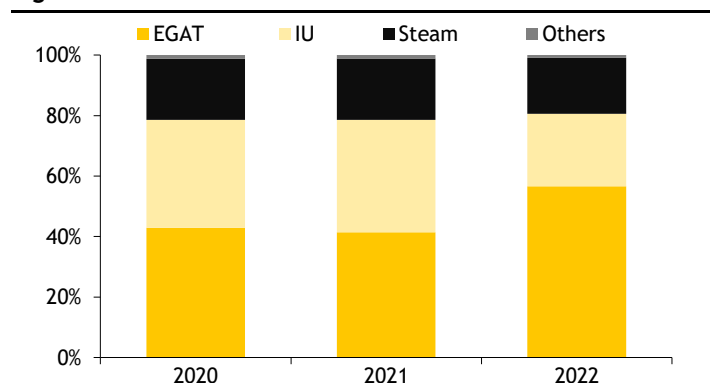
Source: Company, MST

Fig 14: BGRIM 2020-22 revenue breakdown



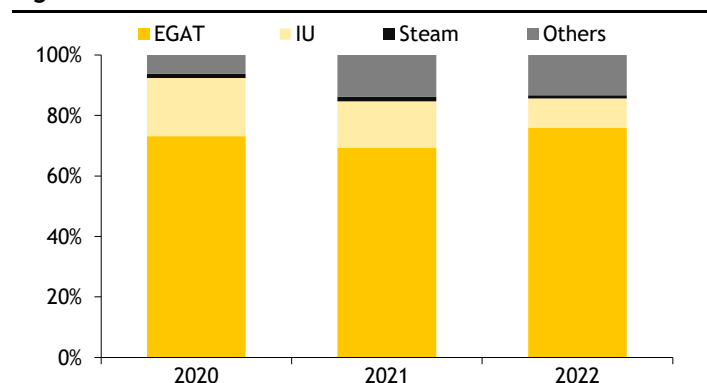
Source: Company, MST

Fig 15: GPSC 2020-22 revenue breakdown



Source: Company, MST

Fig 16: GULF 2020-22 revenue breakdown



Source: Company, MST

3.2 Financial comparison

Expect GPSC to have the highest growth among peers

GULF showed robust growth in both revenue and net profit during 2020-22 with its capacity expansion from 2,767 MWe in 2020 to 4,864 MWe in 2022 mainly from the Global Power Synergy PCL (GPSC) project. GULF also has a resilient portfolio when compared to BGRIM and GPSC, which were directly impacted by mismatches in power tariffs and energy prices in 2022.

However, we expect GULF has limited growth potential for 2023-24 when compared to BGRIM and GPSC due to its current large scale of capacity. We expect GPSC to register the highest 2023-30 earnings CAGR at 19%, mainly from its renewable energy capacity expansion in India through its AEPL holding. We rank BGRIM second with 2023-30E earnings CAGR of 15% mainly from its pipeline of projects in South Korea totaling 560 MWe wind farms.

Fig 17: Key growth ratios

	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue growth (%)											
BGRIM	-0.1%	5.8%	33.8%	20.3%	-0.1%	-4.7%	-2.9%	9.8%	0.5%	0.0%	0.3%
GPSC	4.5%	7.6%	65.2%	-7.9%	-12.7%	-21.4%	-13.1%	-1.0%	-2.9%	-2.3%	-4.3%
GULF	9.3%	44.6%	98.3%	12.9%	1.7%	2.7%	-7.3%	-0.4%	-0.6%	0.4%	-0.8%
Earnings growth (%)											
BGRIM	-6.7%	4.6%	-154.7%	-274.7%	25.4%	15.8%	0.0%	79.1%	1.3%	0.4%	1.4%
GPSC	84.9%	-2.5%	-87.8%	221.8%	100.1%	56.5%	-0.5%	-1.0%	20.5%	-2.1%	-4.7%
GULF	-12.4%	79.1%	48.9%	32.5%	18.9%	10.8%	-1.6%	-3.5%	-4.6%	2.6%	20.2%
2023-30 earnings CAGR (%)											
BGRIM				15.1%							
GPSC				19.4%							
GULF				5.7%							

Source: Company, MST

GULF has strong profitability and returns

GULF has strong profitability ratios when compared to its peers as GULF has the highest GPM, EBITDA and net profit margins during 2020-22 and we expect it to have the highest numbers in 2023-30E as well.

In terms of return (ROA and ROE), GULF also stands out among its peers. GULF's ROE was 7-9% during 2020-22 which means GULF had the highest efficiency on asset and funding usage. With its good track record, we believe GULF will maintain its asset and funding efficiency and expect 2023-30 ROE of around 8.5-12.0%.

Fig 18: Key profitability ratios

	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
GPM (%)											
BGRIM	21.0%	18.6%	10.1%	14.9%	15.4%	19.8%	23.0%	29.2%	29.4%	29.5%	29.6%
GPSC	18.9%	14.9%	2.7%	6.6%	9.2%	15.3%	15.1%	14.2%	17.0%	15.8%	14.4%
GULF	27.8%	27.6%	20.6%	23.4%	25.1%	26.4%	28.5%	27.7%	27.3%	26.3%	24.6%
EBITDA margin (%)											
BGRIM	28.6%	28.0%	14.0%	19.0%	19.2%	25.3%	31.0%	36.4%	36.6%	36.7%	36.9%
GPSC	28.3%	27.8%	10.9%	14.3%	20.2%	31.2%	35.6%	35.6%	39.9%	40.2%	40.8%
GULF	41.7%	42.1%	29.8%	32.7%	36.6%	38.3%	40.9%	40.3%	39.8%	40.6%	46.2%
Net profit margin (%)											
BGRIM	4.9%	4.9%	-2.0%	2.9%	3.6%	4.4%	4.5%	7.4%	7.5%	7.5%	7.6%
GPSC	10.8%	9.8%	0.7%	2.5%	5.8%	11.5%	13.2%	13.2%	16.3%	16.4%	16.3%
GULF	13.0%	16.2%	12.1%	14.2%	16.6%	18.0%	19.1%	18.5%	17.7%	18.1%	21.9%

Source: Company, MST

Fig 19: Return comparison

	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
ROA (%)											
BGRIM	1.7%	1.6%	-0.8%	1.2%	1.4%	1.5%	1.3%	2.1%	2.1%	2.1%	2.0%
GPSC	3.0%	2.8%	0.3%	1.0%	2.0%	3.2%	3.1%	3.1%	3.7%	3.6%	3.4%
GULF	2.3%	2.5%	2.9%	3.6%	4.2%	4.5%	4.3%	3.9%	3.5%	3.4%	3.9%
ROE (%)											
BGRIM	5.6%	5.7%	-3.0%	5.0%	5.8%	6.3%	5.8%	9.4%	8.5%	7.7%	7.1%
GPSC	6.8%	6.4%	0.8%	2.4%	4.7%	7.1%	6.8%	6.4%	7.4%	7.0%	6.4%
GULF	7.1%	8.5%	9.4%	10.7%	11.8%	12.0%	10.9%	9.8%	8.7%	8.4%	9.5%

Source: Company, MST

BGRIM has the highest risk of capital increase

At end-2022, BGRIM has the highest key leverage ratio including Interest-bearing debt (IBD) to equity, net IBD to equity, and debt to equity ratio. For 2023-30, we assumed each company invested in all their potential pipeline projects and found that BGRIM had the most capital increase risk as its debt to equity ratio exceeded 3.0x during 2023-27, and its net IBD to equity of 2.8x in 2026 vs. its financial covenant of 3.0x net IBD to equity. In regard to the 21 Sep 2023 news about BGRIM's plan to establish an infrastructure fund, we believe it could be a possible fund raising choice for BGRIM. Note that BGRIM previously raised funds for the infrastructure fund, ABPIF, into which BGRIM injected two power plants, ABP1 and ABP2. On the flip side, we foresee no capital increase risk for GPSC and GULF.

Fig 20: Key leverage ratios

	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
IBD to equity (x)											
BGRIM	2.04	2.37	2.76	2.90	2.76	2.95	3.39	3.02	2.72	2.47	2.26
GPSC	0.96	0.95	1.14	0.92	0.86	0.79	0.73	0.67	0.61	0.56	0.51
GULF	1.97	2.08	1.85	1.71	1.58	1.45	1.34	1.35	1.41	1.33	1.25
Net IBD to equity (x)											
BGRIM	1.55	1.74	2.07	2.24	2.00	2.28	2.83	2.31	1.87	1.51	1.20
GPSC	0.78	0.84	1.02	0.77	0.80	0.62	0.48	0.36	0.23	0.12	0.02
GULF	1.75	1.89	1.56	1.56	1.42	1.19	1.01	0.91	0.83	0.72	0.60
Debt to Equity (x)											
BGRIM	2.33	2.66	3.05	3.19	3.03	3.18	3.60	3.20	2.88	2.62	2.39
GPSC	1.29	1.30	1.51	1.39	1.30	1.20	1.11	1.04	0.96	0.89	0.83
GULF	2.41	2.37	2.08	1.91	1.76	1.62	1.50	1.50	1.55	1.46	1.37

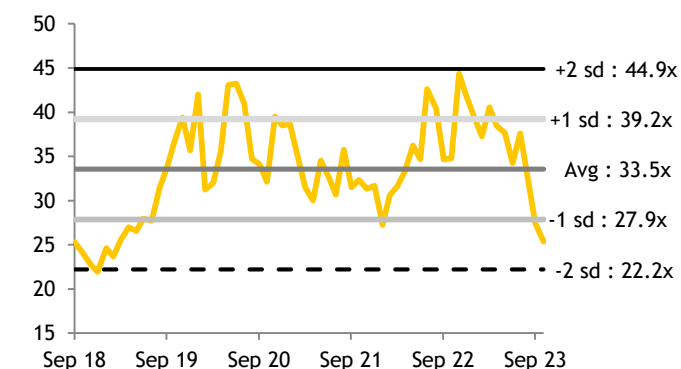
Source: Company, MST

3.3 PER comparison

PERs for GULF and GPSC below past averages

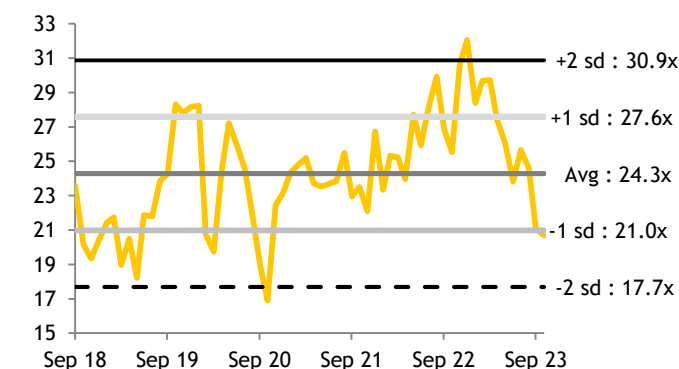
All our utilities stocks are currently trading below their historical PER means with GULF and BGRIM the most undemanding as its trading at below -1SD 12M forward PER, meanwhile GPSC is at -1SD 12M forward PER. In terms of 12M forward PER, GULF seems expensive at 28.1x when compared to BGRIM at 25.4x, and GPSC at 20.7x. However, we think the PER of GULF looks reasonable when compared to its outstanding ROE of around 8.5%-12.0% in 2024-30. Meanwhile BGRIM only provides 5.8%-8.5% ROE in 2024-30.

Fig 21: BGRIM - 12M FWD PER



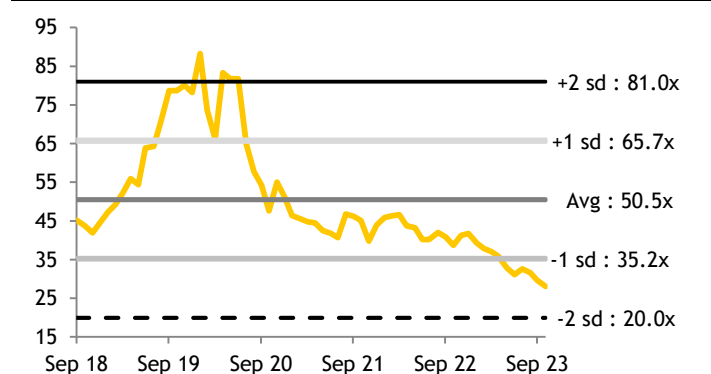
Source: Bloomberg, MST

Fig 22: GPSC - 12M FWD PER



Source: Bloomberg, MST

Fig 23: GULF - 12M FWD PER



Source: Bloomberg, MST

3.4 Domestic and regional peer comparison

Thailand's PER is the highest among regional peers

We compiled a regional and domestic peer valuation table and found that Thailand's utility stocks are trading at the highest PERs of 22.8x/17.2x in 2023-24E vs. the overall average of 11.1x/10.7x. The three Thai utilities with the highest PERs are GULF, GPSC, and BGRIM.

Thai ROEs underperforming, except GULF

We also found that the Thai utility stocks have the lowest average ROEs of 6.4%/8.3% in 2023-24 vs the overall average of 15.5%/13.1%. However, GULF has the highest ROE among domestic peers and is on par with the regional average. GULF's projected ROEs are 13.3%/14.9% for 2023-24.

Fig 24: Regional and domestic utilities - per valuation

Stock	Bloomberg code	Mkt cap (USD'm)	Rating	Price (LC)	TP (LC)	Upside (%)	P/E (x)		P/B (x)		ROE (%)		Div yld (%)	
							23E	24E	23E	24E	23E	24E	23E	24E
Tenaga Nasional	TNB MK	12,307	Hold	10.02	10.00	(0.2)	11.5	11.0	0.9	0.9	8.4	8.5	4.8	5.0
YTL Power	YTLP MK	3,267	Buy	1.90	2.30	21.1	5.5	5.9	0.6	0.8	13.0	14.7	4.6	3.2
Malakoff Corp	MLK MK	617	Hold	0.60	0.55	(7.6)	nm	9.7	0.5	0.5	(2.8)	4.9	3.4	7.2
Malaysia - average							8.5	8.9	0.7	0.7	6.2	9.3	4.3	5.1
Manila Electric	MER PM	7,357	Buy	370.00	387.00	4.6	11.5	13.2	3.4	3.2	31.0	24.8	5.3	5.8
Aboitiz Power	AP PM	4,397	Buy	34.50	47.60	38.0	7.6	7.8	1.3	1.2	19.2	16.3	5.4	6.8
AC Energy Phils	ACEN PM	3,654	Buy	5.22	8.00	53.3	24.3	17.0	1.4	1.3	7.0	9.5	0.8	1.0
Semirara Mining and Power	SCC PM	2,624	Buy	35.00	39.60	13.1	4.3	5.3	1.8	1.5	46.8	30.7	10.0	9.1
First Gen	FGEN PM	1,175	Buy	18.52	31.00	67.4	3.6	3.3	0.4	0.4	13.3	12.8	2.2	2.7
Philippines - average							10.3	9.3	1.7	1.5	23.4	18.8	4.7	5.1
Sembcorp Industries	SCI SP	6,467	Buy	4.96	6.30	26.9	11.5	11.3	2.0	1.7	18.2	16.2	1.6	1.6
Indo Tambangraya	ITMG IJ	1,910	Hold	26,450.00	22,000.00	(16.8)	3.1	9.3	1.0	1.1	32.6	11.5	38.0	14.6
Indonesia/Singapore - average							7.3	10.3	1.5	1.4	25.4	13.8	19.8	8.1
POW	POW VN	1,075	Buy	11,200.00	18,900.00	68.8	10.2	7.7	0.8	0.7	7.9	9.7	0.0	0.0
Ha Do Group	HDG VN	347	NR*	27,700.00	31,600.00	14.1	9.4	7.8	1.4	1.2	1.8	16.7		1.8
NT2	NT2 VN	286	NR*	24,200.00	31,100.00	28.5	11.4	9.2	1.5	1.4	8.7	16.4	9.0	9.1
Vietnam - average							10.3	8.2	1.2	1.1	6.1	14.2	4.5	3.6
Gulf Energy	GULF TB	13,651	Buy	43.00	56.25	30.8	33.2	29.7	4.3	4.1	13.3	14.9	1.8	2.1
Global Power	GPSC TB	3,204	Buy	42.00	57.75	37.5	41.2	20.9	1.1	1.1	2.7	5.2	1.3	2.7
B.Grimm Power	BGRIM TB	1,834	Hold	26.00	30.00	15.4	30.6	30.8	2.2	2.1	7.2	8.7	1.6	2.0
CK Power	CKP TB	699	Buy	3.18	4.50	41.5	27.7	14.1	1.0	0.9	3.5	6.6	1.1	2.1
Banpu Power	BPP TB	1,146	NR*	13.90	17.50	25.9	11.3	10.9	0.8	0.8	5.2	7.4	5.0	4.9
Electricity Generating	EGCO TB	1,674	NR*	117.50	167.29	42.4	6.7	6.1	0.5	0.5	6.2	7.6	5.8	5.9
Ratch Group	RATCH TB	1,824	NR*	31.00	43.17	39.2	9.1	7.9	0.6	0.6	6.6	7.8	5.5	6.0
Thailand - average							22.8	17.2	1.5	1.4	6.4	8.3	3.2	3.7
Average all							11.1	10.7	1.3	1.3	15.5	13.1	9.4	5.6

Source: Maybank IBG Research, Bloomberg

*Not rated stock data reflect Bloomberg consensus projections

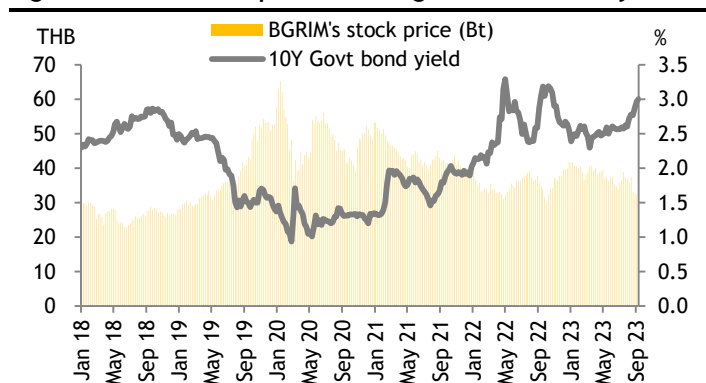
4. Key risks

4.1 Bond yield a potential near-term valuation headwind

BGRIM has negative correlation to Thai 10-year bond yield

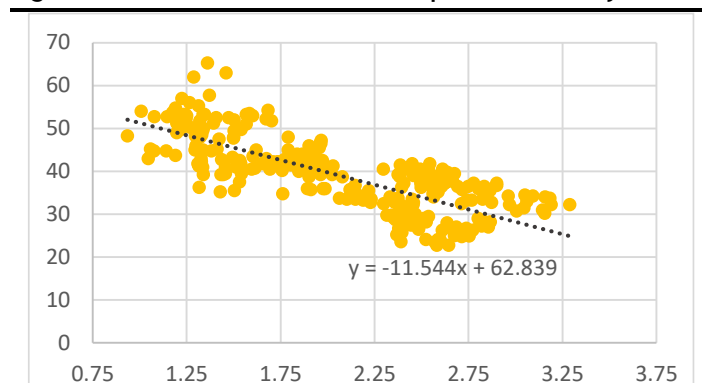
We analysed BGRIM's share price compared to the Thai 10-year government bond yield, and found that BGRIM's share price has a clear negative correlation to the bond yield. For example, there was a global policy rate cut cycle in 2019 that drove the bond yield from 3.0% to 1.0%, and BGRIM's share price also jumped from THB30/share to a peak at around THB60/share. The correlation between BGRIM's share price and the bond yield is -0.78.

Fig 25: BGRIM's share price vs. 10Y government bond yield



Source: Bloomberg, MST

Fig 26: Correlation between BGRIM's price and bond yield

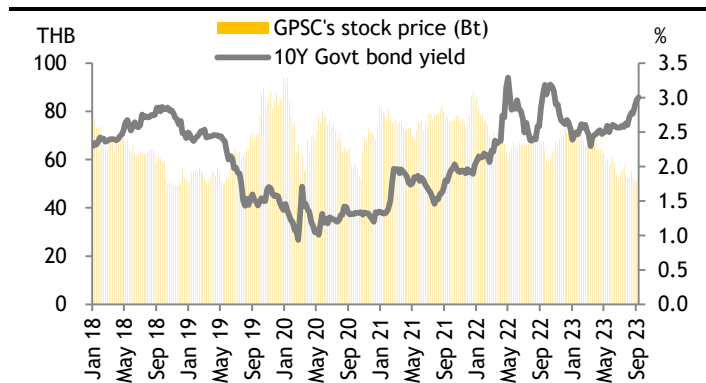


Source: Bloomberg, MST

GPSC also has a negative correlation to bond yield

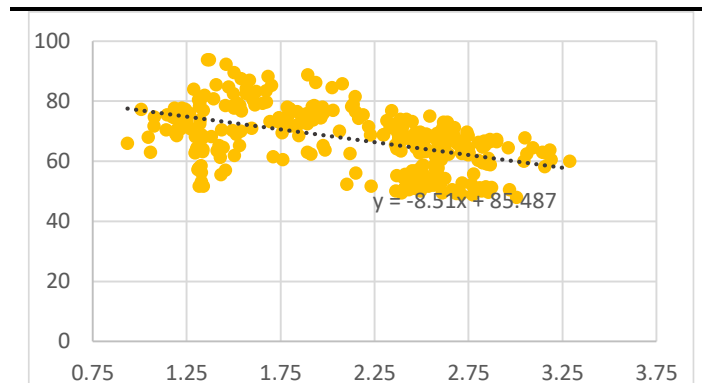
We analysed GPSC's share price compared to the Thai 10-year government bond yield, and found that the GPSC's share price has a clear negative correlation to the bond yield but less obvious than BGRIM's. The global policy rate cut cycle in 2019 drove the bond yield from 3.0% to 1.0%, and GPSC's share price jumped from THB50/share to a peak at around THB90/share. The correlation between the GPSC's share price and the bond yield is at -0.50.

Fig 27: GPSC's share price vs. 10Y government bond yield



Source: Bloomberg, MST

Fig 28: Correlation between GPSC's price and bond yield

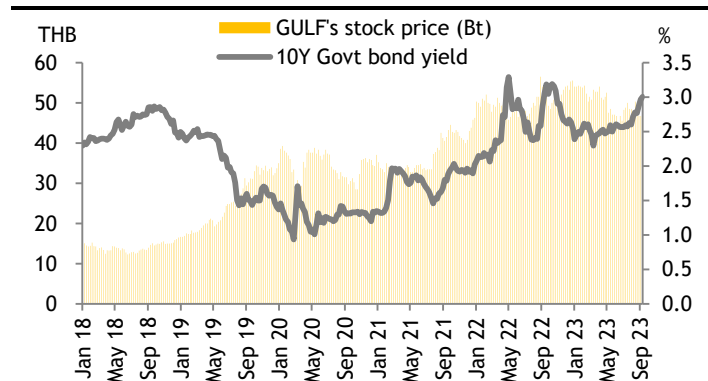


Source: Bloomberg, MST

GULF the only utility with no clear correlation to US bond yield

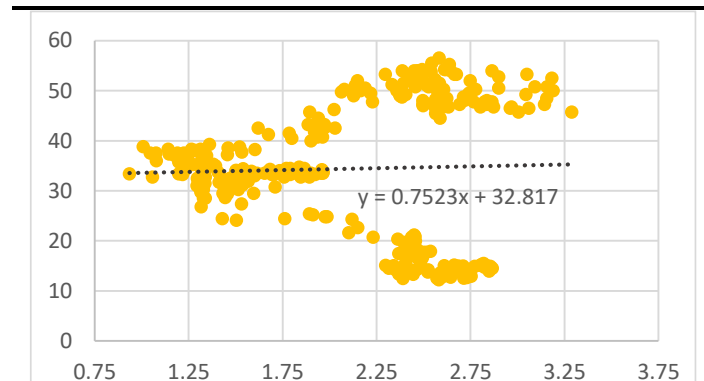
We analysed GULF's share price compared with the Thai 10-year government bond yield, and found that GULF's share price has no clear correlation with the bond yield as GULF's share price has trended higher in the past 5 years. This was aligned with GULF's historical growth profile with a 5-year earnings CAGR of 39%, or from THB3.0bn in 2018 to THB11.4bn in 2022.

Fig 29: GULF's share price vs. 10Y government bond yield



Source: Bloomberg, MST

Fig 30: Correlation between GULF's price and bond yield

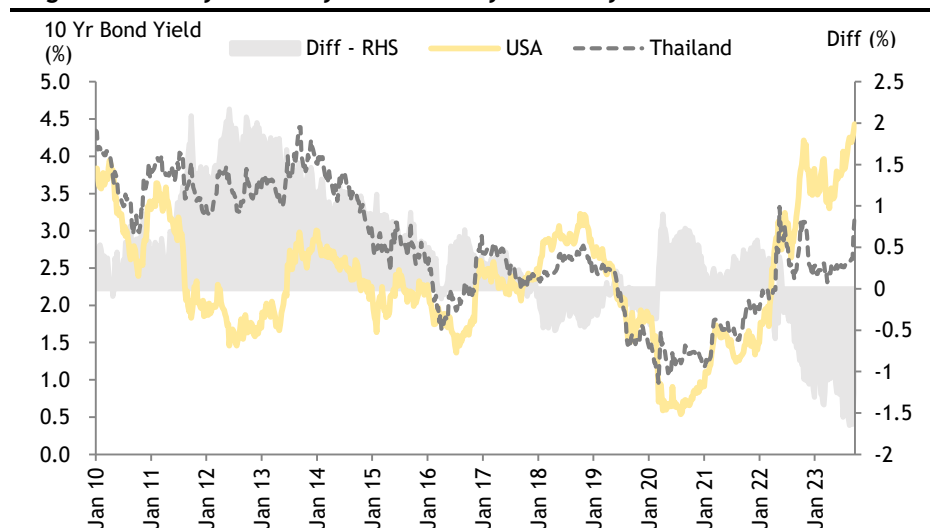


Source: Bloomberg, MST

Negative gap with US drives Thai bond yield higher

We analysed the historical Thai 10-year government bond yield compared to the US 10-year government bond yield, and found that both are moving in the same direction in the past 10 years with the Thai bond yield higher than the US bond yield. However, the US bond yield surged over the Thai bond yield due to policy rate hikes by the Fed aimed at easing inflation in the US in recent years. The market thinks the Fed's policy rate might be near its peak. As a result, there is the possibility that the Thai bond yield will increase in the near term to meet the US bond yield.

Fig 31: Thai 10-year bond yield vs US 10-year bond yield



Source: Refinitiv, MST

US bond yields may have peaked

According to the FedWatch tool of the CME group, there may be no more Fed fund rate hikes in the near future. It suggests the Fed might keep its policy rate in a range of 5.25-5.50% until mid-2024 before starting its rate cut cycle. This implies that the US 10-year government bond yield might have peaked and should start on a downtrend from 3Q24 onwards.

With a negative correlation of the Thai 10-year bond yield and BGRIM's and GPSC's share prices, we believe BGRIM and GPSC will see a negative impact in the short term if the Thai 10-year bond yield increases to meet the US 10-year bond yield. However, both would benefit from a potential downtrend in bond yields, potentially starting in 3Q24 (rate cut cycle).

Fig 32: FedWatch Tool as of 6 Oct 2023

MEETING PROBABILITIES										
MEETING DATE	350-375	375-400	400-425	425-450	450-475	475-500	500-525	525-550	550-575	575-600
11/1/2023			0.0%	0.0%	0.0%	0.0%	0.0%	78.3%	21.7%	0.0%
12/13/2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.8%	30.8%	3.5%
1/31/2024	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	63.6%	29.1%	3.3%
3/20/2024	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	19.6%	54.6%	22.4%	2.4%
5/1/2024	0.0%	0.0%	0.0%	0.0%	0.4%	8.3%	33.3%	42.0%	14.5%	1.5%
6/12/2024	0.0%	0.0%	0.0%	0.2%	4.1%	20.1%	37.4%	29.1%	8.4%	0.8%
7/31/2024	0.0%	0.0%	0.1%	2.3%	12.7%	29.4%	32.9%	17.9%	4.3%	0.4%
9/18/2024	0.0%	0.1%	1.3%	8.0%	21.9%	31.3%	24.7%	10.4%	2.1%	0.2%
11/7/2024	0.0%	0.7%	4.5%	14.6%	26.3%	28.2%	17.9%	6.5%	1.2%	0.1%
12/18/2024	0.4%	3.2%	11.1%	22.3%	27.5%	21.5%	10.4%	3.0%	0.5%	0.0%

Source: CME group

4.2 Subsidy risks remain

BGRIM most sensitive to Ft rate changes

We forecast the Ft rate to remain at THB0.24/kWh for 2024-25 as mentioned. However, our forecasts might see some deviation. We ran a sensitivity analysis of a change in the Ft rate by THB0.10/kWh to see potential downside risk to our 2024 earnings forecasts. As a result, BGRIM sees the most impact with 2024 earnings downside risk of 13%, followed by GPSC at 10%, while GULF sees limited impact of only 1%.

Likewise for natural gas price changes

We forecast 2024-25 natural gas prices to gradually fall to THB360/mmbtu in 2024 and THB305/mmbtu in 2025. However, our forecasts might see some deviation. We ran a sensitivity analysis of a change in natural gas prices of THB10/mmbtu to see potential downside risk to our 2024 earnings forecasts. BGRIM sees the most impact with 2024 earnings downside risk of 10%, followed by GPSC at 6%, while GULF sees no impact.

Fig 33: Key assumption for our utility stock analysis

Key assumptions	2023E	2024E	2025E
Exchange rate			
THB/USD Average	34.85	33.38	31.50
THB/USD Ending year	34.75	32.50	31.00
Energy price			
IPP - gas pool price (THB/mmbtu)	409	350	295
SPP - gas pool price (THB/mmbtu)	418	360	305
Tariff			
Ft (THB/unit)	0.90	0.24	0.24

Source: CME group

Fig 34: Sensitivity of changes in Ft rate and gas prices to earnings

	2024E earnings forecast (THBmn)	Sensitivity		Earnings sensitivity (THBmn)		% Downside	
		Ft rate (THB/kWh)	Gas price (THB/mmbtu)	Ft rate	Gas price	Ft rate	Gas price
BGRIM	2,725	-0.10	+10	2,381	2,469	-12.6%	-9.4%
GPSC	5,712	-0.10	+10	5,156	5,396	-9.7%	-5.5%
GULF	17,989	-0.10	+10	17,803	17,989	-1.0%	0.0%
Total	26,427	-0.10	+10	25,340	25,855	-4.1%	-2.2%

Source: Company, MST

4.3 Scenario analysis - BGRIM is the most sensitive

Scenario analysis on Spark spread

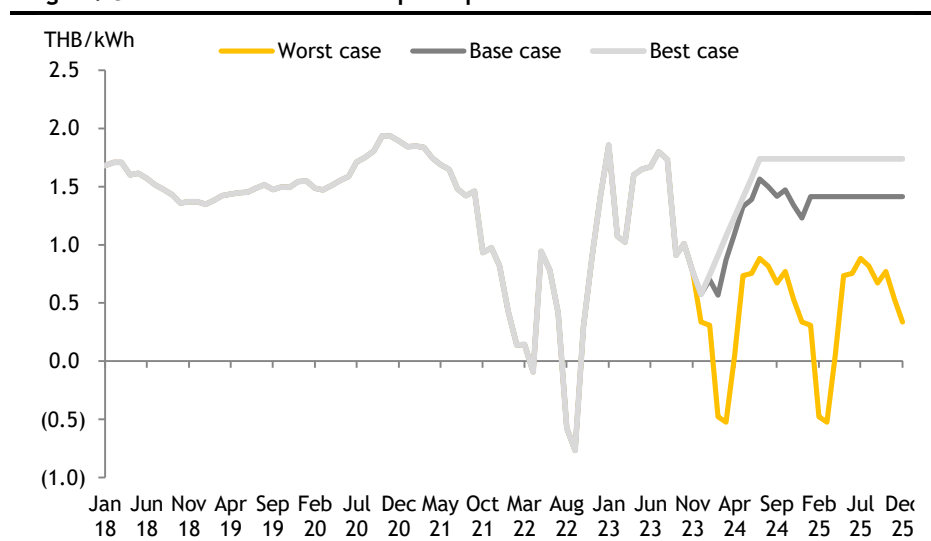
We currently assume the 2024-25 spark spread at THB1.21/kWh and THB1.41/kWh, respectively, based on our expectation of 1) no more Ft rate cut after the Sep-Dec 2023 round, and 2) gas prices will gradually decline to a normal level within 2 years (2024-25).

However, reality might deviate from our expectations. We ran a scenario analysis with two cases: 1) best case, and worst case, to capture possible upside or downside to our earnings forecasts and our target prices.

The best case is based on a higher-than-expected gas price decreasing to a normal level within 1 year (vs. 2 years in base case), meanwhile the Ft rate assumption is constant. With these assumptions, we found the upside for the 2024-25E earnings of BGRIM to be 39%/17%, GPSC 20%/5%, and GULF 3%/4%. We also found that our fair values for BGRIM and GPSC have upside of 2%, but no impact on GULF's fair value.

The worst case is based on 1) gas price remains at the 2023 average level of THB419/mmbtu in 2024-25, and 2) there is another Ft rate cut of THB0.24/kWh to THB0.0/kWh. With these assumptions, we found the downside to 2024-25 earnings of BGRIM at 86% in 2024 and it turns to a net loss in 2025, GPSC has downside risk of 52%/37%, and GULF downside risk of 11%/12%. We also found that the fair value of BGRIM has the most downside risk of 9%, followed by GPSC of 6% and no impact on GULF's fair value.

Fig 35: Our best and worst case spark spreads



Source: CME group

Fig 36: Scenario analysis for best and worst case spark spreads

	Worst case		Base case		Best case	
	2024	2025	2024	2025	2024	2025
Spark spread (Bt/kWh)	0.40	0.40	1.21	1.41	1.45	1.74
- Ft rate (Bt/kWh)	0.00	0.00	0.24	0.24	0.24	0.24
- Gas price (mmbtu)	419	419	360	305	318	282
BGRIM						
Net profit (THBmn)	390	-262	2,725	3,155	3,784	3,680
- Upside/downside (%)	-86%	NM	NM	NM	39%	17%
Target price (THB)	24.30		26.75		27.42	
- Upside/downside (%)	-9%		NM		2%	
GPSC						
Net profit (THBmn)	2,766	5,634	5,740	8,984	6,897	9,413
- Upside/downside (%)	-52%	-37%	NM	NM	20%	5%
Target price (THB)	54.25		57.75		58.75	
- Upside/downside (%)	-6%		NM		2%	
GULF						
Net profit (THBmn)	16,085	17,538	17,989	19,933	18,563	20,707
- Upside/downside (%)	-11%	-12%	NM	NM	3%	4%
Target price (THB)	56.25		56.25		56.25	
- Upside/downside (%)	0%		NM		0%	

Source: Company, MST

Gulf Energy Development (GULF TB)

Top Pick in power sector

BUY

Share Price THB 43.25
12m Price Target THB 56.25 (+32%)

Initiate coverage with BUY and TP of THB56.25

We initiate coverage of GULF with a BUY rating and end-2024 DCF-based target price of THB56.25. First, we expect quarterly earnings to hit new highs for the next five quarters, which should be a near-term catalyst. Second, we expect GULF to deliver the highest ROE among its peers. Third, GULF has additional upside potential from its latest contract awards with potential for more should the government's new Power Development Plan (PDP) call for more renewable capacity. Lastly, GULF has the most resilient earnings to volatile gas prices and Fuel Tariff (Ft) rate adjustments by the government.

Riding on aggressive expansion phase

GULF is currently on an aggressive capacity expansion phase from 2.7 GW in 2020 to 8.4 GW in 2025E. We expect GULF's quarterly profits to hit all-time highs in the next five quarters (4Q23-4Q24). This will be driven by the commissioning of GPD units #2-4, an IPP project whose earnings rely on availability payments. As a result, IPP capacity will rise to account for 69% of GULF's portfolio in 2025 from 49% in 2020.

Resilient to external factors

GULF is the most resilient among its peers. We ran a sensitivity analysis of a change in natural gas prices of THB10/mmbtu, and an Ft rate change of THB0.10 to see potential downside risk to our FY24 earnings forecast. GULF's earnings saw no effect from the change in natural gas prices, while it had only 1% downside to FY24 earnings from an Ft rate change.

3% potential upside to our fair value estimate

According to the latest domestic renewable energy tender data, GULF has been awarded renewable energy projects totalling equity capacity of 1.7 GW. The projects are pending PPA agreements with related government entities (EGAT, PEA). To capture the potential upside from the awarded projects, we derive a 25-year DCF valuation and found that there is 3.0% potential upside to our fair value and 8.5% potential upside to our FY30 earnings forecast.

FYE Dec (THB m)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenue	47,467	94,151	106,288	108,098	110,995
EBITDA	5,885	11,544	15,782	17,447	19,400
Core net profit	8,811	11,527	15,210	16,961	19,247
Core EPS (THB)	0.75	0.98	1.30	1.45	1.64
Core EPS growth (%)	96.8	30.8	32.0	11.5	13.5
Net DPS (THB)	0.44	0.60	0.77	0.92	1.02
Core P/E (x)	60.9	56.2	33.4	29.9	26.4
P/BV (x)	5.6	5.9	4.3	4.1	3.8
Net dividend yield (%)	1.0	1.1	1.8	2.1	2.4
ROAE (%)	9.6	11.0	13.3	14.9	15.6
ROAA (%)	2.9	3.0	3.6	3.9	4.3
EV/EBITDA (x)	126.0	74.6	48.5	44.0	38.9
Net gearing (%) (incl perps)	180.5	138.7	155.6	141.5	119.3
Consensus net profit	-	-	15,499	19,274	22,432
MIBG vs. Consensus (%)	-	-	(2.4)	(6.7)	(11.1)

Natchaphon Rodjanarowan
Natchaphon.rodjanarowan@maybank.com
(66) 2658 5000 ext 1393

Company Description

GULF is a power producer. The majority of its capacity is in Thailand. About 62% of its installed capacity is in independent power projects.

Statistics

52w high/low (THB)	55.50/43.00
3m avg turnover (USDm)	23.2
Free float (%)	26.1
Issued shares (m)	11,733
Market capitalisation	THB507.5B USD13.7B

Major shareholders:

Sarath Ratanavadi	35.7%
UBS AG SINGAPORE BRANCH	12.6%
GULF CAPITAL HOLDINGS LIMITED	9.9%

Price Performance



	-1M	-3M	-12M
Absolute (%)	(7)	(5)	(12)
Relative to index (%)	(0)	(1)	(3)

Source: FactSet

Key terms explained

Availability payments - a kind of revenue of IPPs that depend on the availability of power plants to generate electricity.

Abbreviations used in this report

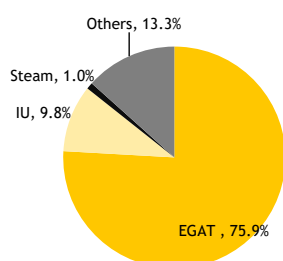
PPA - Power purchasing agreement
EGAT - Electricity Generating Authority of Thailand
PEA - Provincial Electricity Authority
COD - Commercial operation date
SCOD - Scheduled commercial operation date
GW - gigawatt
MW - megawatt

ESG@MAYBANK IBG
Tear Sheet Insert

Value Proposition

- GULF is a power operator whose main capacity is in Thailand with IPPs accounting for 62% of its total capacity
- GULF has secured projects to boost its long-term growth, including GPD, Hinkong, Burapa, and three hydropower plants in Laos.
- It has diversified its portfolio to other businesses, including telecom through THCOM and INTUCH, infrastructure such as developing motorways, the Map Ta Phut Port Phase 3, and Laem Chabang Port Phase 3, and digital businesses.
- 5-year investment plan (2023-27) totals THB120b, mainly for renewable energy projects.

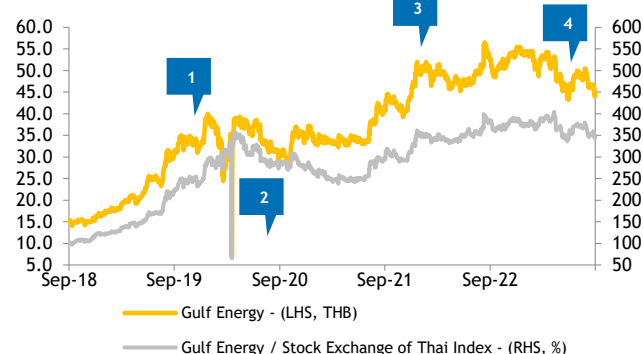
FY22 revenue breakdown



Source: Company

Price Drivers

Historical share price trend



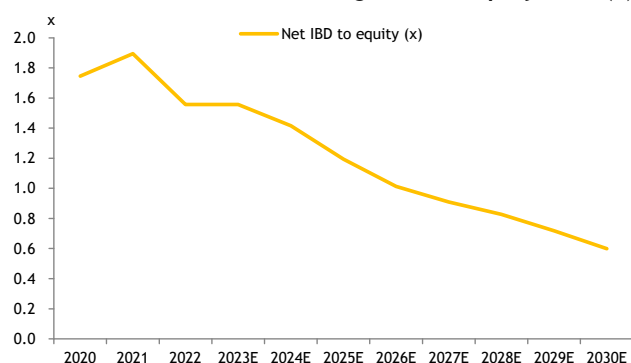
Source: Company, MST

- Commissions SPP projects, securing project financing for GPD projects, and investing in Hinkong and Burapa projects.
- Share price fell in line with the SET due to Covid-19 outbreak.
- Share price saw a long uptrend due to earnings growth from capacity expansion.
- Concerns about government policies impacted the power sector.

Financial Metrics

- We forecast core profit to reach new highs for the next four quarters following the commissioning of GPD units no.2-4 during FY23-24.
- We also forecast FY24-25 earnings to increase by 19% YoY and 11% YoY, respectively, due to higher capacity.
- We expect net interest bearing debt-to-equity ratio to gradually decline from 1.6x in FY23 to 1.2x in FY25 as it completes investment in its two largest projects, GSRC and GPD. These projects will fully contribute to earnings in FY23-24. Note that GULF has a financial covenant of net IBD-to-equity ratio of 3.5x.

Forecasted net interest bearing debt-to-equity ratio (x)



Source: Company

Swing Factors

Upside

- Secures a sizable project to increase its capacity and earnings.
- Government policy concerns eases.
- Quarterly core profit continues to reach new highs in ensuing years.

Downside

- Delays to project construction.
- Lower-than-expected return from projects acquired.
- Uncertainty about government power projects.

Risk Rating & Score ¹	36.3 High risk (43/83)
Score Momentum ²	-6.8
Last Updated	8 September 2023
Controversy Score ³ (Updated: 8 Sep 2023)	Category 1 - Low

Business Model & Industry Issues

- The company established a human rights due diligence process, guided by the UNGPs, which is used as a basis for the identification, assessment and management of human rights risks and relevant remediation.
- Among its peers, we believe GULF falls in the middle of the pack in terms of ESG. On the environmental front, GULF's pollution and waste are well within internal limits but renewable as a percentage of its portfolio is only 9% as massive IPP capacity are being commission during 2022-24. GULF will continue to build its renewable portfolio both domestically and overseas.
- Sustainability remains a key focus for GULF as it continues to invest in renewables and it's aggressively looking to secure projects to maintain earnings growth (highest visibility amongst peers in terms of committed capacity). Nevertheless, GULF needs to balance this growth as its capital-allocation strategy (venturing into non-core projects) has raised concerns in the market.

Material E issues

- GULF has a 'no coal' policy with plans to invest in more renewables. As of 2022, renewables account for 9% of its capacity.
- Intensity reduction target of 25% by 2030 compared to 2019 (base year). In 2022, the intensity reduction was at 4%.
- Target renewable energy capacity (as a proportion of total installed generating capacity) of 40% by 2035. In 2022, there was 9%.
- 0% waste to landfill.
- Sustainable supply chain management has been identified as a new material issue due to the more complex nature of the company's supply chain resulting from its business diversification and overseas expansion.
- Achieve air quality following EIA limit.

Material S issues

- As of 2022, it had 1,074 employees, of which 31% are female. 37% of top management roles are held by females, and 39% of middle management positions are occupied by women.
- 56 training hours per person on average, which achieves its target of 50 hours.
- Employee engagement was at 77% in 2022 vs its target of 80%.
- Zero employee fatalities and zero lost time injury frequency rate .

Key G metrics and issues

- There are 12 members on the board, of which 4 are women and 7 are independent.
- Independent directors lead the audit, sustainability and risk committees.
- Major shareholder is Sarath Ratanavadi (CEO) with 35.7% shareholding.
- In 2022, GULF received an "Excellent" rating of Corporate Governance Report of Thai Listed Companies.
- The company is committed to conducting business in an ethical manner. As such, the company has established a group-wide anti-bribery and corruption policy to supplement its code of conduct, both of which are applied at all levels, including the board of directors, executives and employees, to guide appropriate conduct and maintain business integrity.
- Besides the power business, GULF has ventured into several projects in infrastructure/utilities that may not fall under "energy", such as industrial port development (Map Ta Phut), deep sea container port (Laem Chabang), and intercity motorway. GULF does not have expertise in these businesses, but it's a minority shareholder in these consortiums.

¹**Risk Rating & Score** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. ²**Score Momentum** - indicates changes to the company's score since the last update - a **negative** integer indicates a company's improving risk score; a **positive** integer indicates a deterioration. ³**Controversy Score** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

Quantitative Parameters (Score: 54)						
	Particulars	Unit	2020	2021	2022	BGRIM TB (2022)
E	Scope 1 GHG emissions	m tCO ₂ e	8.5	9.6	10.5	5.2
	Scope 2 GHG emissions	m tCO ₂ e	0.04	0.04	0.1	0.006
	Total	m tCO₂e	8.5	9.6	10.6	5.2
	Scope 3 GHG emissions	m tCO ₂ e	0.0	2.7	3.1	1.32
	Total	m tCO₂e	8.5	12.3	13.7	6.49
	GHG intensity (Scope 1 and 2)	tCO ₂ e/t	389	398	388	380
	Green energy share of capacity	%	9.7	1.3	1.4	NA
	Water consumption	M cu mtr	N/A	22.9	15.4	18.5
	% of flyash recycled/treated	%	100%	100%	100%	100%
	% of recycled material used	%	71%	30%	57%	85%
	NO _x (excluding N ₂ O)	tons	1,657	1,856	2,316	3,045
	SO _x	tons	119	178	119	94
	SPM/particulate matter (PM10)	tons	78	130	149	124
S	% of women in workforce	%	31%	31%	31%	30%
	% of women in management roles	%	40%	40%	43%	27%
	Lost time injury frequency (LTIF) rate	number	0.00	0.00	0.00	0.00
G	MD/CEO salary as % of reported net profit	%	33%	21%	2%	-8%
	Top 10 employees salary as % of profit	%	N/A	N/A	N/A	N/A
	Independent directors tenure < 10 years	%	55%	50%	58%	60%
	Female directors on the Board	%	36%	40%	33%	50%

Qualitative Parameters (Score: 67)	
a) Is there an ESG policy in place and is there a standalone ESG committee or is it part of the risk committee?	<i>The company has various policies covering different aspects of ESG. The company has a Sustainability, Governance and Risk Committee which approves the policies that are implemented by the sustainability and risk management department overseen by the CEO and executive committee</i>
b) Is the senior management salary linked to fulfilling ESG targets?	<i>No.</i>
c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?	<i>Yes.</i>
e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?	<i>Yes</i>
f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?	<i>The company has increasing the non-fossil fuel capacity, has targets for water neutral/positive and zero waste to landfill</i>
g) Does carbon offset form part of the net zero/carbon neutrality target of the company?	<i>Yes, but at a very small level.</i>

Target (Score: 83)		
Particulars	Target	Achieved
Scope 1 greenhouse gas emissions intensity reduction by 2030	25%	4%
RE share of capacity at 40% by 2035	40%	9%
Zero operational waste to landfill	Zero	Zero
Average training hours per Full-Time Employee	50	56
Net Zero target	N/A	N/A
Work-related accidents and injuries	Zero	Zero
Impact		
NA		
Overall Score: 54		
As per our ESG matrix GULF has an overall score of 54.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	33	17
Qualitative	25%	67	17
Target	25%	83	21
Total			54

As per our ESG assessment, GULF has established ESG policies that have been integrated well into its power generation and distribution operations and it has itemized medium to long-term targets for "E" and "S", which include a plan to aggressively dilute share of coal to total power mix. GULF has clear medium-term energy transition targets that may benefit its "E" score but can still add more project visibility to 40% share of capacity by 2035. BGRIM's overall ESG score is 54, which makes its ESG rating below average in our view (average ESG rating = 64).

1. Investment highlights

1.1 Securing both short-term and long-term capacity

Aggressive capacity expansion

GULF is in an aggressive capacity expansion phase from 2.7 GW in 2020 to 8.4 GW in 2025E, mainly from: 1) GSRC, an IPP project with 1.9 GW with COD in 2021-22; 2) GPD, an IPP project with 1.9 GW with COD in 2023-24; 3) acquisition of BKR2, an offshore wind project in Germany with 116 MW; 4) acquisition of Jackson Generation, LLC, a gas-fired power plant in the US with 588 MW; and 5) Hinkong, an IPP project with 755 MW in 2024-25. This implies IPPs will make up 69% of GULF's portfolio in 2025, up from 49% in 2020.

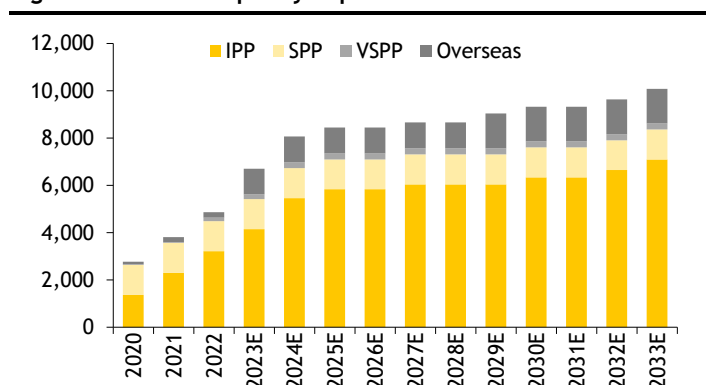
Securing long-term capacity

GULF has also secured capacity expansion during 2029-33, including: 1) Outer Dowsing, an offshore wind project in the UK with 375 MW expected to COD in 2029; 2) Luang Prabang, a hydropower project in Laos with 292 MW expected to COD in 2030; 3) Pak Lay, a hydropower project in Laos with 308 MW expected to COD in 2032; and 4) Pak Beng, a hydropower project in Laos with 447 MW expected to COD in 2033. All three hydropower projects in Laos have already signed PPAs with EGAT.

Resilient to external factors

As IPPs make up a large proportion of GULF's portfolio, the company is the most resilient among its peers. We ran a sensitivity of a change in the natural gas price by THB10/mmbtu, and Ft rate change of THB0.10 to assess potential downside risk to our FY24 earnings forecast. GULF has no affect from natural gas price change while we see 1% downside to our FY24 earnings forecast from the Ft rate change.

Fig 1: Forecasted capacity expansion



Source: Company, MST

Fig 2: Projects under development

Developing project	% Stake	Installed capacity (MW)	Equity Capacity (MWe)	SCOD
GPD	70%	2,650	1,855	2023-24
Hinkong	49%	1,540	755	2024-25
BPP	35%	600	210	2027
Outer Dowsing	25%	1,500	375	2029
Luang Prabang	20%	1,460	292	2030
Pak Lay	40%	770	308	2032
Pak Beng	49%	912	447	2033
Total	45%	9,432	4,241	

Source: Company, MST

Fig 3: Earnings sensitivity to change in Ft rate and natural gas price

	2024E earnings forecast (THBmn)	Sensitivity		Earnings sensitivity (THBmn)		% Downside	
		Ft rate (THB/kWh)	Gas price (THB/mmbtu)	Ft rate	Gas price	Ft rate	Gas price
BGRIM	2,725	-0.10	+10	2,381	2,469	-12.6%	-9.4%
GPSC	5,712	-0.10	+10	5,156	5,396	-9.7%	-5.5%
GULF	17,989	-0.10	+10	17,803	17,989	-1.0%	0.0%
Total	26,427	-0.10	+10	25,340	25,855	-4.1%	-2.2%

Source: Company, MST

1.2 Record quarterly core profits set to persist

Following GULF's recent aggressive capacity expansion, we expect quarterly results to continually rise and core profit (excluding Fx gain/loss and other extra items) to hit all-time highs in at least the next five quarters (4Q23-4Q24), driven by COD of GPD units #2-4, an IPP project whose earnings rely on availability payments (AP). AP is a kind of revenue of IPPs that depend on the availability of power plants to generate electricity. AP is normally high during the early to mid-term of a PPA, after which it gradually decreases towards the end of a PPA's term.

Although 2Q23 core profit dropped by 3% QoQ as it had to use diesel to fuel IPPs to produce electricity in 1Q23, we believe diesel won't be used again due to currently low natural gas prices. We expect its core profit to continue to increase on a QoQ basis from 3Q23 onwards. (3Q23 results are due to be announced in mid-Nov 2023.)

Fig 4: Quarterly results and FY23-25 earnings forecasts

	2Q22	3Q22	4Q22	1Q23	2Q23	2023E	2024E	2025E
Financial								
Revenue (THBm)	23,004	23,631	26,888	26,413	32,557	106,288	108,098	110,995
Gross profit (THBm)	4,437	4,700	5,740	5,311	5,442	24,862	27,136	29,277
Operating profit (THBm)	3,798	4,057	4,619	4,570	4,516	20,810	23,132	25,304
Net profit (THBm)	1,531	1,087	5,406	3,850	2,885	15,127	17,989	19,933
Core profit (THBm)	3,082	2,168	3,023	3,667	3,556	15,210	16,961	19,247
Key ratio								
GPM (%)	19.3%	19.9%	21.3%	20.1%	16.7%	23.4%	25.1%	26.4%
Net profit margin (%)	6.7%	4.6%	20.1%	14.6%	8.9%	14.2%	16.6%	18.0%
Operation								
Operating capacity (MWe)	4,112	4,112	4,112	4,201	4,201	6,707	8,061	8,439
Sales volume (GWh)	5,230	3,342	4,233	4,963	8,786	22,784	25,686	32,941
Assumption								
SPP gas price (THB/mmbtu)	422	579	509	496	406	418	360	305
Ft rate (THB/kWh)	0.17	0.48	0.93	1.55	1.13	0.90	0.24	0.24
Average Fx rate (THB/USD)	34.4	36.4	36.3	34.0	34.5	34.9	33.4	31.5
Ending Fx rate (THB/USD)	35.4	37.8	34.6	34.2	35.4	34.8	32.5	31.0

Source: Company, MST

1.3 Upside potential from latest tenders

3% upside potential to our fair value estimate

Following the most recent domestic renewable energy tenders, GULF has been awarded renewable energy projects totalling equity capacity of 1.7 GW, including solar and wind power projects, but we have limited information on the proportion of each type of capacity. The awarded capacity have SCODs ranging from 2024-30. These projects are currently pending signing of PPAs with related organizations.

To capture the potential upside from the projects awarded, we derive a 25-year DCF valuation using the following key assumptions: 1) all MW are solar power; 2) a 25-year PPA for each project; 3) debt proportion of 75%; 4) a WACC of 4.7%; and 5) IRR of 8.1%. As a result, there is 3% upside potential

to our fair value estimate, and 8.5% upside potential to our FY30 earnings forecast.

Fig 5: Awarded capacity (assumptions)

Awarded MW assumption	
Power type	Solar farm
PPA capacity (MW)	1,700
% Stake	100%
Equity capacity (MWe)	1,700
Tariff (Bt/kWh)	2.1679
Investment per MW (THBmn)	25
COD	2024-30
PPA term	25 years

Source: Company, MST

Fig 6: Valuation of awarded capacity

Valuation assumption	
Method	DCF
Duration	25 years
Debt : Equity	75:25
WACC	4.70%
Return assumption	
IRR (%)	8.2%
Annually earnings (THBmn)	1,890
% upside to 2030E earnings	8.5%
Incremental value (THB/sh)	1.70
% upside to TP	3.0%

Source: Company, MST

2. Attractive valuation with upside potential

BUY on GULF due to exciting earnings outlook

We rate GULF a BUY as: 1) quarterly earnings should hit fresh highs for the next four quarters, which should be a near-term catalyst; 2) we expect GULF to provide the most attractive return among its peers as we forecast FY23-25 ROE of 10.7%/11.8%/12.0%, respectively; and 3) our fair value estimate for GULF has 3% upside potential as it secured 1.7 GW from the recent tenders. In addition, GULF has the most resilient earnings to volatile natural gas prices and changes in the Ft rate.

Target price of THB56.25

We derive an end-FY24 DCF-based target price of THB56.25 using a WACC of 5.0%. Our WACC is based on: 1) cost of debt of 3.5%; and 2) cost of equity of 11.1%, consisting of a risk-free rate of 3.0%, beta of 1.1x, and a market-risk premium of 7.4%. Our target price implies 36.7x FY24E PER, and 4.1x FY24E PBV.

FYE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
Key Metrics					
P/E (reported) (x)	56.6	51.3	33.5	28.2	25.5
Core P/E (x)	60.9	56.2	33.4	29.9	26.4
P/BV (x)	5.6	5.9	4.3	4.1	3.8
P/NTA (x)	5.6	5.9	4.3	4.1	3.8
Net dividend yield (%)	1.0	1.1	1.8	2.1	2.4
FCF yield (%)	0.9	1.6	3.3	3.9	4.4
EV/EBITDA (x)	126.0	74.6	48.5	44.0	38.9
EV/EBIT (x)	68.8	52.3	36.8	33.2	29.8

INCOME STATEMENT (THB m)

Revenue	47,467.3	94,150.9	106,288.3	108,097.7	110,995.0
EBITDA	5,884.9	11,544.3	15,781.7	17,446.6	19,400.2
Amortisation	0.0	0.0	0.0	0.0	0.0
EBIT	10,781.9	16,485.3	20,810.4	23,131.5	25,304.0
Net interest income / (exp)	(5,512.4)	(7,408.6)	(8,201.5)	(8,201.5)	(8,201.5)
Associates & JV	2,886.0	6,321.3	8,117.9	8,767.0	9,708.3
Other pretax income	1,358.4	55.0	842.8	1,952.9	1,610.3
Pretax profit	9,514.0	15,452.9	21,569.6	25,650.0	28,421.1
Income tax	(346.9)	(1,344.1)	(1,876.2)	(2,231.1)	(2,472.1)
Minorities	(1,496.8)	(2,691.2)	(4,566.0)	(5,429.7)	(6,016.3)
Discontinued operations	0.0	0.0	0.0	0.0	0.0
Reported net profit	7,670.3	11,417.6	15,127.5	17,989.1	19,932.6
Core net profit	8,811.3	11,526.6	15,209.7	16,961.2	19,247.3

BALANCE SHEET (THB m)

Cash & Short Term Investments	19,846.8	39,193.7	22,779.3	25,498.9	44,168.2
Accounts receivable	9,568.9	18,998.8	17,472.1	17,769.5	18,245.8
Inventory	0.0	0.0	0.0	0.0	0.0
Reinsurance assets	0.0	0.0	0.0	0.0	0.0
Property, Plant & Equip (net)	130,128.0	99,554.7	119,854.1	126,997.0	121,421.1
Intangible assets	18,964.4	3,873.0	3,545.2	3,217.4	2,889.5
Investment in Associates & JVs	135,573.4	160,933.8	168,635.0	171,376.1	172,163.5
Other assets	48,592.3	95,618.1	95,719.5	95,734.6	95,758.8
Total assets	362,673.8	418,172.0	428,005.1	440,593.5	454,646.8
ST interest bearing debt	9,927.0	6,669.0	6,669.0	6,669.0	6,669.0
Accounts payable	3,080.4	7,484.1	6,692.6	6,654.4	6,716.5
Insurance contract liabilities	0.0	0.0	0.0	0.0	0.0
LT interest bearing debt	203,962.5	220,899.1	243,895.8	243,895.8	243,895.8
Other liabilities	38,195.0	47,318.0	24,329.0	24,330.0	24,332.0
Total Liabilities	255,164.7	282,370.4	281,586.5	281,549.5	281,613.5
Shareholders Equity	96,595.9	110,787.0	116,838.0	124,033.6	132,006.7
Minority Interest	10,913.2	25,014.6	29,580.6	35,010.3	41,026.7
Total shareholder equity	107,509.1	135,801.5	146,418.5	159,043.9	173,033.3
Total liabilities and equity	362,673.8	418,172.0	428,005.1	440,593.5	454,646.8

CASH FLOW (THB m)

Pretax profit	9,514.0	15,452.9	21,569.6	25,650.0	28,421.1
Depreciation & amortisation	(4,897.0)	(4,941.0)	(5,028.7)	(5,685.0)	(5,903.7)
Other operating cash flow	0.0	0.0	0.0	0.0	0.0
Cash flow from operations	4,617.0	10,511.9	16,540.9	19,965.0	22,517.4
Free cash flow	4,617.0	10,511.9	16,540.9	19,965.0	22,517.4
Other invest/financing cash flow	(672.4)	8,834.9	(32,955.3)	(17,245.4)	(3,848.1)
Effect of exch rate changes	0.0	0.0	0.0	0.0	0.0
Net cash flow	3,944.6	19,346.8	(16,414.4)	2,719.6	18,669.3

FYE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
Key Ratios					
Growth ratios (%)					
Revenue growth	44.6	98.3	12.9	1.7	2.7
EBITDA growth	79.4	96.2	36.7	10.5	11.2
EBIT growth	53.0	52.9	26.2	11.2	9.4
Pretax growth	52.2	62.4	39.6	18.9	10.8
Reported net profit growth	79.1	48.9	32.5	18.9	10.8
Core net profit growth	96.8	30.8	32.0	11.5	13.5
Profitability ratios (%)					
EBITDA margin	12.4	12.3	14.8	16.1	17.5
EBIT margin	22.7	17.5	19.6	21.4	22.8
Pretax profit margin	20.0	16.4	20.3	23.7	25.6
Payout ratio	67.3	61.7	60.0	60.0	60.0
DuPont analysis					
Net profit margin (%)	16.2	12.1	14.2	16.6	18.0
Revenue / Assets (x)	0.1	0.2	0.2	0.2	0.2
Assets / Equity (x)	3.8	3.8	3.7	3.6	3.4
ROAE (%)	9.6	11.0	13.3	14.9	15.6
ROAA (%)	2.9	3.0	3.6	3.9	4.3
Liquidity & Efficiency					
Cash conversion cycle	nm	nm	nm	nm	nm
Days receivable outstanding	57.8	54.6	61.8	58.7	58.4
Days inventory outstanding	nm	nm	nm	nm	nm
Days payables outstanding	23.2	25.5	31.3	29.7	29.5
Dividend cover (x)	1.5	1.6	1.7	1.7	1.7
Current ratio (x)	1.1	1.4	1.9	2.0	2.7
Leverage & Expense Analysis					
Asset / Liability (x)	1.4	1.5	1.5	1.6	1.6
Net gearing (%) (incl perps)	180.5	138.7	155.6	141.5	119.3
Net gearing (%) (excl. perps)	180.5	138.7	155.6	141.5	119.3
Net interest cover (x)	2.0	2.2	2.5	2.8	3.1
Debt / EBITDA (x)	nm	19.7	15.9	14.4	12.9
Capex / revenue (%)	na	na	na	na	na
Net debt / (net cash)	194,042.7	188,374.4	227,785.5	225,065.9	206,396.7

Source: Company; Maybank IBG Research

Global Power Synergy (GPSC TB)

Earnings reboot

BUY with TP of THB57.75

We initiate coverage of GPSC with BUY and end-FY24E DCF-based target price of THB57.75. We estimate 3Q23 earnings jumped QoQ, which should be a near-term catalyst for the stock (results due out on mid-Nov 2023). Longer term, we expect GPSC to provide attractive returns over the next few years as we forecast an uptrend in FY23-25 ROE to 2.4%/4.7%/7.1%, respectively, from 0.8% for FY22. GPSC is trading at a 12-month forward PER of 20.7x, the lowest among its peers despite increasing ROE.

Earnings likely picked up in 3Q23

We believe earnings started to gradually recover in 3Q23 and we expect further improvement in 4Q23. We expect lower gas price for the small power producer (SPP) business, which was not yet reflected in 2Q23. We also expect no extra item from mark-to-market losses caused by decline in the price of coal affecting its coal inventory and no major plant overhauls in the near term. Although the government has cut the fuel tariff (Ft) rate, we believe this is the last round of cuts, and we expect the spark spread to widen next year due to falling natural gas cost.

Plans to increase RE capacity in India

GPSC targets to increase its renewable energy (RE) portfolio to over 50% of its capacity by 2030. Its main strategy to achieve this goal is to increase RE capacity in India through 43%-owned AEPL. AEPL is one of the top RE producers in India with 4 GW of operating capacity and it targets to have 11 GW of capacity by 2026. AEPL has not yet provided a sizable return to GPSC as it's still in the process of expanding its capacity.

Uncertainty about PPA renewals, but impact limited

Two PPAs totalling 1.4 GW are due to expire during 2025-28. There's risk the PPAs may not be renewed as this capacity may no longer be needed given Thailand's high reserve margin. If not renewed, we believe it will be a negative sentiment to GPSC's share price but we foresee limited impact to GPSC's earnings as we estimate the two IPPs contribute only 1.1% of our FY24 earnings forecast.

FYE Dec (THB m)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenue	74,874	123,685	113,881	99,391	78,121
EBITDA	16,066	9,205	13,325	15,447	18,977
Core net profit	6,037	37	2,875	5,664	8,933
Core EPS (THB)	2.14	0.01	1.02	2.01	3.17
Core EPS growth (%)	(17.1)	(99.4)	7,577.8	97.0	57.7
Net DPS (THB)	1.50	0.50	0.56	1.12	1.75
Core P/E (x)	41.5	nm	40.9	20.8	13.2
P/BV (x)	2.3	2.0	1.1	1.0	1.0
Net dividend yield (%)	1.7	0.7	1.3	2.7	4.2
ROAE (%)	6.9	0.8	2.7	5.2	7.9
ROAA (%)	2.3	0.0	1.0	2.0	3.1
EV/EBITDA (x)	21.2	33.2	16.3	14.5	10.9
Net gearing (%) (incl perps)	69.0	77.6	73.3	76.3	58.8
Consensus net profit	-	-	4,269	6,349	7,332
MIBG vs. Consensus (%)	-	-	(32.8)	(9.6)	22.5

Natchaphon Rodjanarowan
 Natchaphon.rodjanarowan@maybank.com
 (66) 2658 5000 ext 1393

BUY

Share Price THB 41.75
 12m Price Target THB 57.75 (+44%)

Company Description

GPSC is a power producer with 6 GW of installed capacity (IPP makes up 37%, followed by SPP of 33% and others of 30%).

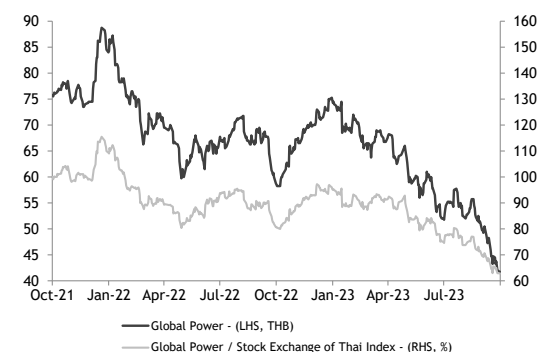
Statistics

52w high/low (THB)	75.25/41.75
3m avg turnover (USDm)	13.0
Free float (%)	34.7
Issued shares (m)	2,820
Market capitalisation	THB117.7B USD3.2B

Major shareholders:

PTT PCL	63.8%
Thai NVDR	9.2%
State Street Europe Ltd	3.2%

Price Performance



	-1M	-3M	-12M
Absolute (%)	(19)	(20)	(29)
Relative to index (%)	(12)	(16)	(22)

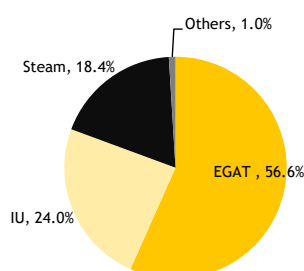
Source: FactSet

ESG@MAYBANK IBG
 Tear Sheet Insert

Value Proposition

- GPSC is a power producer focusing on conventional energy. It's both an IPP and a SPP.
- GPSC has 6 GW of installed capacity (IPP makes up 37%, followed by SPP of 33% and others of 30%).
- Due to the global green energy trend, GPSC targets to reduce carbon intensity by 10% by 2025 and by 35% by 2030, and targets carbon neutrality by 2050.
- One of GPSC's key goals is to increase RE capacity in India through investment in 43%-owned AEPL.
- GPSC is currently seeking a new S-curve business, including energy storage systems, and batteries for EVs and mobility vehicles, by partnering with AXXIVA and NV Gotion.

FY22 revenue breakdown

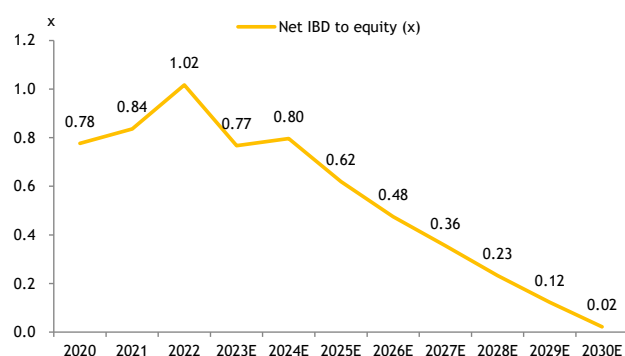


Source: Company

Financial Metrics

- Although 2Q23 earnings fell 73% QoQ, we believe 3Q23 earnings rose due to lower gas price for the SPP business, and there will be no major plant overhauls in 2H23.
- We believe GPSC's earnings are in the recovery phase; we forecast FY24 core profit to rise by 97% YoY.
- We forecast a net debt-to-equity ratio of 0.62x-0.80x for FY23-25, as it has no huge investments in the next couple of years. Note that GPSC had already injected capital into AEPL to increase capacity to 11 GW. The net debt-to-equity ratio is still below its internal policy of 1.0x.

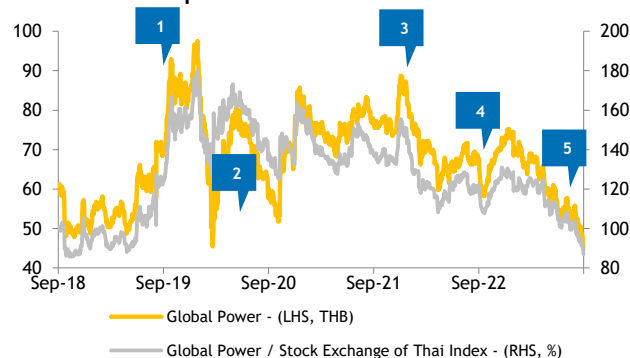
Forecasted net interest bearing debt-to-equity ratio (x)



Source: Company

Price Drivers

Historical share price trend



Source: Company, MST

- Global policy rate cut to lower inflation.
- First phase of Covid-19 in Thailand causing the circuit breaker of the SET to be triggered twice.
- Announcement of entry into the battery manufacturing business by establishing Nuovo Plus, a JV with PTT PCL (PTT TB, CP THB31.75, Not Rated).
- High energy price due to the Russia-Ukraine war, resulting in high domestic natural gas pool price; however power tariffs were not raised accordingly.
- 2Q23 earnings disappointed and the market was doubtful about its investment in the India market.

Swing Factors

Upside

- Widening of the spark spread, which is the spread between power tariffs and gas cost per unit.
- Sizable capacity expansion with attractive IRR to secure and boost long-term growth.
- Global policy rate cut cycle, which could cause the 10-year Thai government bond yield to trend down.

Downside

- Policy to reduce power tariffs with no subsidy, lowering GPSC's margins.
- Surge in both natural gas price and coal price.
- Long unplanned maintenance shutdown of its large power plant.

Risk Rating & Score¹	25.6 Medium Risk (17/83)
Score Momentum²	-0.1
Last Updated	5 May 2023
Controversy Score³ (Updated: 5 May 2023)	None - no evidence of controversy

Business Model & Industry Issues

- GPSC is the utility flagship of PTT and we should see it continue to push its ESG goals. Gas is 51% of its fuel type, while renewables make up 30%. Its initiatives in developing S-curve technologies (energy storage, battery manufacturing and energy management system) can give it an edge over peers.
- GPSC's air/water pollution and quality metrics are all within internal targets.
- GPSC has set ambitious targets of raising renewables to 35% of its 2030 capacity. Key risk is surge in renewable M&A risks overinflating price of assets and lowering returns. The push on S-curve initiatives (battery manufacturing, etc) is also challenging as GPSC must gain a competitive advantage for it to make commercial sense.
- GPSC is on track to see its ESG credentials strengthened as its next 5-year strategy is highly geared towards supporting PTT's vision of a "greener" and "electric" future.

Material E issues

- GPSC targets to reduce both direct and indirect GHG emissions intensity reduction by 10% by 2025, and 35% by 2030.
- Targets to increase in RE power production. Long-term target is carbon neutrality by 2050.
- Reduced GHG emissions by 294,505 tCO₂e from the use of RE and reduced fuel consumption by 7.40 MMBtu.
- Water withdrawal reduction of 7.8%.
- GPSC is involved in various initiatives to push the S curve: energy storage, energy management system and battery manufacturing partnering with Axxiva and NV Gotion.
- Joined and supported external climate-change networks as members, namely Carbon-Neutral Thailand, Carbon Market Thailand, and RE100 Thailand Club, to build on and promote entry into the low-carbon business.

Material S issues

- Total employees: 1,128, of which 29.43% are female. Females make up 29.72% of all management positions.
- Employee turnover is 5.8%, which is less than the average of those in the same industry.
- Total training hours per person in 2022 was 28.
- 0 LTIFR. No human rights violation/complaints.
- 69% employee engagement rate compared to the industry's average of 63%.
- Throughout 2022, GPSC publicized the revised key behaviours across the organization through four participatory and accessible activities: ACT Ambassador, Happy ACT the Series, ACT SPIRIT in Action, and You're My ACT SPIRIT Idol, with the awareness target of 70% of the total personnel.

Key G metrics and issues

- There are 13 board members, of which 6 are independent and 2 are female.
- Independent directors lead the audit, risk, governance committees.
- Total board of director remuneration was THB15m, or 1.7% of FY22 net profit.
- GPSC targets to commercialize battery production this year and increase capacity by 5-10 GWh per year.
- GPSC initiated the systematic development of a corporate culture centred on digital technology and innovation.
- GPSC collaborated with external agencies to study the development of a battery swapping station project for commercial transportation.
- Ensuring alignment with Thailand's policy to establish itself as Southeast Asia's ESS (energy storage system) and EV production hub with the goal of continuously pushing innovative products to the market to meet the needs of the industrial, commercial, and transportation sectors; and promoting and developing new business models that support the country's digital economy and clean energy efforts.
- GPSC targets S3: S-curve & batteries strategy for the development of ESS innovations.
- GPSC is committed to developing battery innovations, infrastructure, and related services to fully develop the ecosystem for the production of EVs as well as utility devices and systems.

¹Risk Rating & Score - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. **²Score Momentum** - indicates changes to the company's score since the last update - a **negative** integer indicates a company's improving risk score; a **positive** integer indicates a deterioration. **³Controversy Score** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

Quantitative Parameters (Score: 44)						
	Particulars	Unit	2020	2021	2022	BGRIM TB (2022)
E	Scope 1 GHG emissions	m tCO ₂ e	11.2	11.8	12.7	5.2
	Scope 2 GHG emissions	m tCO ₂ e	0.0	0.0	0.0	0.006
	Total	m tCO₂e	11.2	11.8	12.7	5.2
	Scope 3 GHG emissions	m tCO ₂ e	0.3	1.4	1.5	1.32
	Total	m tCO₂e	11.6	13.2	14.2	6.49
	GHG intensity (Scope 1 and 2)	tCO ₂ e/t	436	444	453	380
	Green energy share of capacity	%	11%	26%	26%	NA
	Water consumption	M cu mtr	47.1	34.9	32.1	18.5
	% of flyash recycled/treated	%	99.7%	99.7%	99.1%	100%
	% of recycled material used	%	92.2%	94.5%	95.7%	85%
	NO _x (excluding N ₂ O)	tons	6,964	12,827	12,614	3,045
S	SO _x	tons	4,421	3,901	3,522	94
	SPM/particulate matter (PM ₁₀)	tons	152	460	475	124
	% of women in workforce	%	29.8%	30.0%	29.4%	30%
G	% of women in management roles	%	30.0%	29.2%	29.7%	27%
	Lost time injury frequency (LTIF) rate	number	0.00	0.00	0.00	0.00
	MD/CEO salary as % of reported net profit	%	2.1%	2.1%	15.9%	-8%
G	Top 10 employees salary as % of profit	%	N/A	N/A	N/A	N/A
	Independent directors tenure < 10 years	%	47%	47%	46%	60%
	Female directors on the Board	%	13%	13%	15%	50%

Qualitative Parameters (Score: 67)	
a) Is there an ESG policy in place and is there a standalone ESG committee or is it part of the risk committee?	<i>The company has a Corporate Governance and Sustainability Committee that formulates policies and strategies. The company has various policies covering different aspects of ESG. There are KPIs, business objectives, governance enablers and risks for each of the segments.</i>
b) Is the senior management salary linked to fulfilling ESG targets?	<i>No.</i>
c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?	<i>Yes.</i>
e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?	<i>Yes. It captures data for fuel- and energy-related activities, business travel, waste, upstream transportation and distribution.</i>
f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?	<i>The company is increasing non-fossil fuel capacity, and targets to be water neutral/positive and zero waste to landfill.</i>
g) Does carbon offset form part of the net zero/carbon neutrality target of the company?	<i>Yes, but at a very small level.</i>

Target (Score: 100)		
Particulars	Target	Achieved
Reduce the intensity of greenhouse gas (GHG) emissions by 2030 from base year 2020	35%	
RE share of capacity at 50% by 2030	50%	26%
Carbon neutrality by 2050	2050	N/A
Net-zero emission by 2060	2060	N/A
Impact		
NA		
Overall Score: 64		
As per our ESG matrix GPSC has an overall score of 64.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	44	22
Qualitative	25%	67	17
Target	25%	100	25
Total			64

As per our ESG assessment, GPSC has established ESG policies that have been integrated well into its power generation and operations and it has itemized medium to long-term targets for “E” and “S”, which include a plan to aggressively dilute share of coal to total power mix. GPSC has clear medium-term energy transition targets that may benefit its “E” score but can still add more project visibility to 50% share of capacity by 2030 and perhaps explore net-zero targets. GPSC’s overall ESG score is 64, which makes its ESG rating at average in our view (average ESG rating = 64).

1. Investment highlight

1.1 Earnings gradually returning to normal

Mismatch of high energy cost and low electricity selling price

The 4Q22 loss of THB436m was due to a mismatch of: 1) high natural gas pool price due to a shortfall in production from the Erawan field and high imported LNG price; and 2) low power tariffs (low Ft rate) resulting in losses for EGAT (Electricity Generating Authority of Thailand) and huge debt.

Lagging recognition of lower gas price

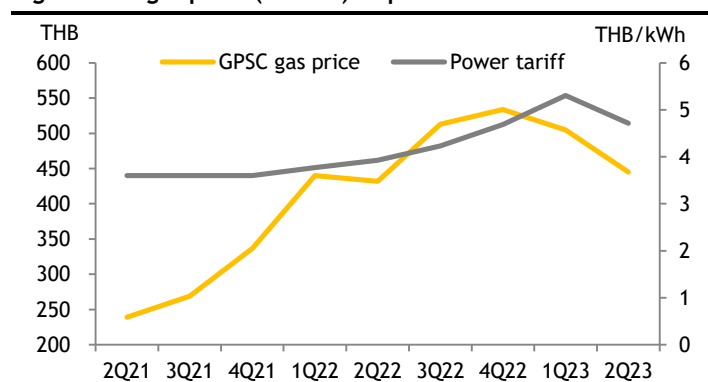
2Q23 earnings plunged by 72% QoQ due to: 1) one-time mark-to-market losses due to the decline in the price of coal affecting the value of its coal inventory for Gheco-One; and 2) 25% lower gross profit from the SPP business QoQ resulting from: 1) lower Ft rate; and 2) lagging beneficial of recognition of lower gas price. GPSC has two components to its gas price for the SPP business, based on its gas supply contracts: 1) SPP pool gas supply contract, which is used for electricity sold to EGAT; and 2) co-gen gas supply contract, which is used for electricity sold to industrial users. The co-gen gas price normally relies on fuel oil price, or there's a 1-2 month lag to the SPP pool price. As a result, the adjustment in GPSC's SPP gas price moves slower than SPP gas pool price and BGRIM's gas price.

Quarterly earnings likely already bottomed out

We believe earnings gradually recovered in 3Q23 due to: 1) lower gas price of the SPP business, which 2Q23 have not yet fully reflected the benefit of a downtrend in gas pool price; 2) no more extra loss from coal stock adjustment as no dispatch of Gheco-One this year; and 3) no major plant overhauls in the near term. Although we are in the Ft rate cut cycle, the Ft rate should still be higher YoY, and we expect the spark spread to also be higher YoY as a result.

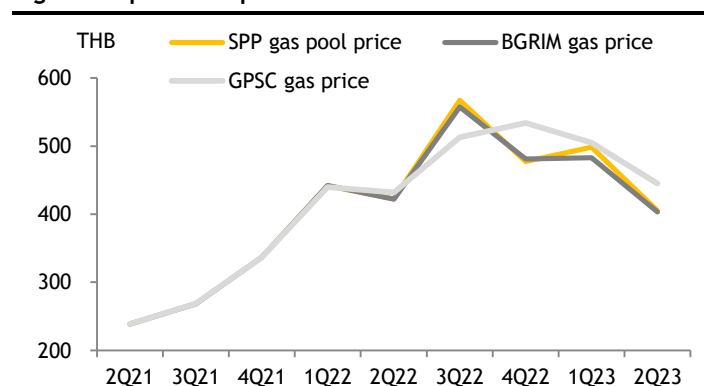
We also forecast FY24 earnings to continually recover due to our expectation of lower natural gas pool price as a result of full production at Erawan field and as imported LNG price returns to normal. We expect the Ft rate to remain constant as it is necessary for EGAT to recoup losses. The 2024 spark spread should pick up starting from late-1Q24 onwards.

Fig 1: GPSC gas price (mmbtu) vs power tariff



Source: ERC, Company, MST

Fig 2: Gas price comparison



Source: Company, MST

Fig 3: Quarterly results and FY23-25 earnings forecasts

	2Q22	3Q22	4Q22	1Q23	2Q23	2023E	2024E	2025E
Financial								
Revenue (THBm)	27,719	33,866	34,839	27,905	23,035	113,881	99,391	78,121
Gross profit (THBm)	1,489	820	351	2,659	1,758	7,502	9,172	11,942
Operating profit (THBm)	1,031	398	-659	2,163	1,121	4,944	6,635	9,775
Net profit (THBm)	684	331	-436	1,118	309	2,869	5,740	8,984
Core profit (THBm)	580	392	-723	1,045	276	2,875	5,664	8,933
Key ratio								
GPM (%)	5.4%	2.4%	1.0%	9.5%	7.6%	6.6%	9.2%	15.3%
Net profit margin (%)	2.5%	1.0%	-1.3%	4.0%	1.3%	2.5%	5.8%	11.5%
Operation								
Operating capacity (MWe)	5,733	5,733	5,733	6,958	6,958	6,642	7,277	6,707
Sales volume (GWh)	5,265	5,494	5,688	4,207	3,590	20,895	21,092	16,800
Assumption								
SPP gas price (THB/mmbtu)	432	513	534	505	445	418	360	305
Ft rate (THB/kWh)	0.17	0.48	0.93	1.55	0.96	0.90	0.24	0.24
Average Fx rate (THB/USD)	34.4	36.4	36.3	34.0	34.5	34.9	33.4	31.5
Ending Fx rate (THB/USD)	35.4	37.8	34.6	34.2	35.4	34.8	32.5	31.0

Source: Company, MST

1.2 Expanding overseas RE capacity

GPSC's main green portfolio - AEPL

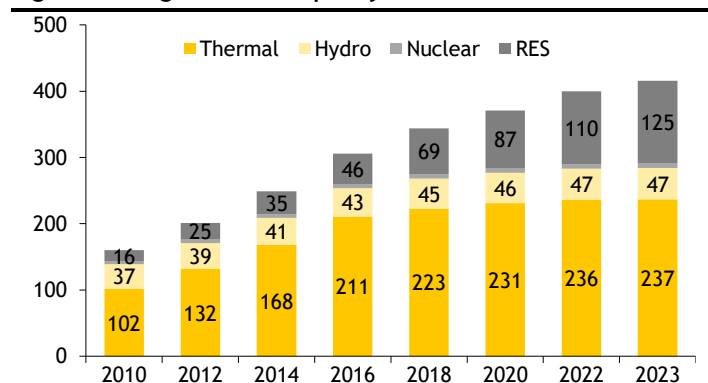
GPSC targets to increase its RE portfolio to over 50% of its total capacity by 2030. One of GPSC's priorities is to enhance RE capacity in India through 43%-owned AEPL.

The Indian government targets to reduce carbon intensity to below 45% by 2030, and to achieve carbon neutral and net zero emissions by 2070. In the past 10 years, India increased the proportion of RE from only 10% of its total capacity in 2010 to 30% in 2023 (excluding hydropower), and it also developed power transmission infrastructure. To achieve the target, India's government announced plans to add 250 GW of RE in the next 5 years to reach 500 GW of clean energy by 2030. This means there will be RE tenders of roughly 50GW per year during 2023-28.

AEPL is one of the top RE players in India with 4 GW of operating capacity and 2.7 GW under development scheduled to be commissioned in 2023-25. AEPL targets to expand capacity to 11 GW by 2026 by participating in RE tenders. Note that GPSC has already injected capital into AEPL sufficient for capacity expansion to 11 GW.

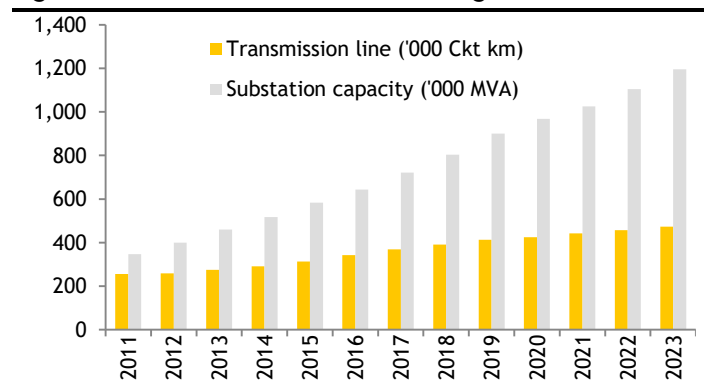
AEPL has not yet provided a sizable return to GPSC as it's still in the capacity expansion phase, as it continually invests in new projects with a high cost of debt of around a high single-digit. However, we believe AEPL will give GPSC a stable return when AEPL's portfolio has reached 11 GW in 2026 with no more huge investments.

Fig 4: Power generation capacity trend in India



Source: ERC, Company, MST

Fig 5: Power transmission infrastructure growth in India



Source: Company, MST

CFXD: wind power project in Taiwan

GPSC is also developing offshore wind power in Taiwan through CFXD, with contract capacity of 595 MW or an equity capacity of 149 MW as GPSC owns 25% of this project. The project is expected to start full commercial operation in 1Q24. Construction is 72% completed; all the foundations are laid and five turbines have been energized.

1.3 Uncertainty about renewal of PPAs**1.4 Two PPAs due to expire in 2025-2028**

Two PPAs are due to expire during 2025-2028. The two PPAs are: 1) the 700-MW Sriracha project due to expire in 2025; and 2) the 677-MW Glow IPP project due to expire in 2028.

There's a possibility the PPAs won't be renewed as there is currently tension about high power tariffs and as the domestic reserve margin is already high. If the PPAs are not renewed, we believe it should be a negative sentiment to GPSC's share price. However, we foresee limited impact to GPSC's earnings as the two PPAs currently make limited contributions to GPSC's earnings as these PPAs are already near the end of their contract term. Note that IPP-type PPAs normally have a huge 'availability payment' (i.e. revenue from IPPs) during the initiate/mid stage of the PPA before gradually decreasing towards the end of the PPA term. We forecast the two IPPs contribute only 1.1% of our FY24 earnings forecast.

2. Attractive valuation**BUY on GPSC**

We rate GPSC a BUY as: 1) we expect 3Q23 earnings jumped QoQ, which should be a near-term catalyst; 2) we expect GPSC to provide attractive returns in a couple of years as we forecast an uptrend in FY23-25 ROE to 2.4%/4.7%/7.1%, respectively; and 3) GPSC is trading at a 12-month forward PER of 20.7x, the lowest among its peers despite our expectation of increasing ROE.

Target price of THB57.75

Our end-FY24 DCF-based target price of THB57.75 is based on a WACC of 6.5%. Our WACC is based on: 1) cost of debt of 3.5%; and 2) cost of equity of 12%, consisting of a risk-free rate of 3.0%, beta of 1.2x, and a market-risk premium of 7.4%. Our target price implies 28.4x FY24E PER, and 1.3x FY24E PBV.

FYE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
Key Metrics					
P/E (reported) (x)	29.6	218.8	41.0	20.5	13.1
Core P/E (x)	41.5	nm	40.9	20.8	13.2
P/BV (x)	2.3	2.0	1.1	1.0	1.0
P/NTA (x)	2.3	2.0	1.1	1.0	1.0
Net dividend yield (%)	1.7	0.7	1.3	2.7	4.2
FCF yield (%)	6.8	4.5	10.2	13.6	17.3
EV/EBITDA (x)	21.2	33.2	16.3	14.5	10.9
EV/EBIT (x)	41.7	nm	43.9	33.8	21.2

INCOME STATEMENT (THB m)

Revenue	74,873.5	123,685.1	113,880.7	99,390.9	78,121.1
EBITDA	16,065.8	9,205.2	13,325.4	15,447.4	18,976.7
Amortisation	0.0	0.0	0.0	0.0	0.0
EBIT	8,174.8	1,051.2	4,944.5	6,635.5	9,775.1
Net interest income / (exp)	(3,859.8)	(4,298.9)	(4,283.8)	(4,123.8)	(3,963.8)
Associates & JV	1,536.0	1,539.0	1,232.1	2,879.6	3,651.9
Other pretax income	3,181.3	2,789.9	1,685.9	1,768.6	1,743.1
Pretax profit	9,032.4	1,081.2	3,578.7	7,159.9	11,206.2
Income tax	(1,192.0)	376.2	(258.5)	(517.2)	(809.5)
Minorities	(521.8)	(565.9)	(451.1)	(902.4)	(1,412.5)
Discontinued operations	(1,282.0)	(854.0)	6.1	(76.6)	(51.1)
Reported net profit	7,318.6	891.4	2,869.1	5,740.3	8,984.3
Core net profit	6,036.6	37.4	2,875.2	5,663.7	8,933.2

BALANCE SHEET (THB m)

Cash & Short Term Investments	13,792.5	14,236.0	18,574.1	8,143.5	22,432.1
Accounts receivable	13,441.5	20,177.6	18,720.1	16,338.2	12,841.8
Inventory	6,938.3	11,914.7	13,115.2	11,122.9	8,159.1
Reinsurance assets	0.0	0.0	0.0	0.0	0.0
Property, Plant & Equip (net)	95,581.0	92,647.4	89,271.7	103,687.6	96,756.3
Intangible assets	77,616.3	75,865.7	74,132.4	72,381.6	70,613.3
Investment in Associates & JVs	27,700.3	44,371.7	44,371.7	44,371.7	44,371.7
Other assets	35,309.2	29,596.9	29,496.3	29,347.6	29,129.4
Total assets	270,379.1	288,810.1	287,681.5	285,393.1	284,303.7
ST interest bearing debt	0.0	3,370.6	3,250.2	3,129.8	3,009.4
Accounts payable	6,407.2	10,887.4	8,743.5	7,415.3	5,439.4
Insurance contract liabilities	0.0	0.0	0.0	0.0	0.0
LT interest bearing debt	94,996.2	100,198.3	103,679.9	99,617.6	95,555.4
Other liabilities	51,228.0	59,254.0	51,532.0	51,269.0	50,882.0
Total Liabilities	152,631.6	173,709.9	167,205.3	161,431.3	154,886.5
Shareholders Equity	108,334.3	104,730.0	109,654.9	112,238.0	116,280.9
Minority Interest	9,413.3	10,370.3	10,821.3	11,723.8	13,136.2
Total shareholder equity	117,747.5	115,100.2	120,476.2	123,961.8	129,417.2
Total liabilities and equity	270,379.1	288,810.1	287,681.5	285,393.1	284,303.7

CASH FLOW (THB m)

Pretax profit	9,032.4	1,081.2	3,578.7	7,159.9	11,206.2
Depreciation & amortisation	7,891.0	8,154.0	8,380.9	8,811.9	9,201.6
Other operating cash flow	0.0	0.0	0.0	0.0	0.0
Cash flow from operations	16,923.4	9,235.2	11,959.5	15,971.9	20,407.8
Free cash flow	16,923.4	9,235.2	11,959.5	15,971.9	20,407.8
Other invest/financing cash flow	(23,419.7)	(8,791.7)	(7,621.5)	(26,402.5)	(6,119.2)
Effect of exch rate changes	0.0	0.0	0.0	0.0	0.0
Net cash flow	(6,496.4)	443.4	4,338.1	(10,430.6)	14,288.6

FYE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
Key Ratios					
Growth ratios (%)					
Revenue growth	7.6	65.2	(7.9)	(12.7)	(21.4)
EBITDA growth	(7.6)	(42.7)	44.8	15.9	22.8
EBIT growth	(26.9)	(87.1)	370.4	34.2	47.3
Pretax growth	(4.8)	(88.0)	231.0	100.1	56.5
Reported net profit growth	(2.5)	(87.8)	221.8	100.1	56.5
Core net profit growth	(17.1)	(99.4)	7,577.6	97.0	57.7
Profitability ratios (%)					
EBITDA margin	21.5	7.4	11.7	15.5	24.3
EBIT margin	10.9	0.8	4.3	6.7	12.5
Pretax profit margin	12.1	0.9	3.1	7.2	14.3
Payout ratio	57.8	158.2	55.0	55.0	55.0
DuPont analysis					
Net profit margin (%)	9.8	0.7	2.5	5.8	11.5
Revenue/Assets (x)	0.3	0.4	0.4	0.3	0.3
Assets/Equity (x)	2.5	2.8	2.6	2.5	2.4
ROAE (%)	6.9	0.8	2.7	5.2	7.9
ROAA (%)	2.3	0.0	1.0	2.0	3.1
Liquidity & Efficiency					
Cash conversion cycle	62.2	51.3	70.6	79.6	84.7
Days receivable outstanding	54.2	48.9	61.5	63.5	67.2
Days inventory outstanding	37.3	28.2	42.4	48.4	52.4
Days payables outstanding	29.3	25.9	33.2	32.2	35.0
Dividend cover (x)	1.7	0.6	1.8	1.8	1.8
Current ratio (x)	2.0	1.6	2.6	2.0	2.7
Leverage & Expense Analysis					
Asset/Liability (x)	1.8	1.7	1.7	1.8	1.8
Net gearing (%) (incl perps)	69.0	77.6	73.3	76.3	58.8
Net gearing (%) (excl. perps)	69.0	77.6	73.3	76.3	58.8
Net interest cover (x)	2.1	0.2	1.2	1.6	2.5
Debt/EBITDA (x)	5.9	11.3	8.0	6.7	5.2
Capex/revenue (%)	na	na	na	na	na
Net debt/ (net cash)	81,203.7	89,332.9	88,356.0	94,604.0	76,132.8

Source: Company; Maybank IBG Research

B.Grimm Power PCL (BGRIM TB)

Volatile earnings, unattractive valuation vs peers

HOLD with TP of THB26.75; prefer GULF

Initiate coverage of BGRIM with HOLD and end-FY24 DCF-based target price of THB26.75 as: 1) capacity expansion to enhance its earnings growth will be limited; 2) megawatts (MW) awarded from the latest domestic tender was limited; and 3) uncertainty about power tariffs from the government (among peers, BGRIM's earnings is one of the most sensitive to such external factors). We prefer GULF (GULF TB, BUY, TP THB56.25) due to its resilience to external factors and as it will benefit from future tenders.

Earnings may have bottomed out in FY22

We believe BGRIM's quarterly earnings had already bottomed out during 3Q22-4Q22. We foresee a downtrend in imported LNG price as concerns about the Russia-Ukraine war has eased, and production of the Erawan field has increased. Although we are in the Ft (fuel tariff) rate cut cycle, the Ft rate should still be higher YoY, and we expect the spark spread to also be higher YoY as a result.

Uninterrupted capacity until year 2037

BGRIM had already commissioned all its new SPPs (small power producers), totalling 479 MW of capacity, replacing SPPs retired during 2021-22 totalling 241 MW. As such, no power plant in its portfolio will be retired until 2037, meaning BGRIM has limited risk regarding renewal or replacing conventional power plants despite the current high reserve margin. In addition, BGRIM has announced potential capacity expansion totalling 1,031 MW during 2023-2030.

Unattractive valuation vs GPSC and GULF

BGRIM is trading at around 12M forward PER of 25.4x (-1SD), which is still much higher than GPSC's 20.7x. This makes BGRIM's valuation look expensive as we forecast both BGRIM and GPSC's ROE to be at the same level of 5-7% in FY23-25. BGRIM's PER of 25.4x is slightly lower than GULF's 28.1x. However, we expect GULF to deliver ROE of 10-12% for FY23-25, much higher than BGRIM's.

FYE Dec (THB m)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenue	46,628	62,395	75,067	74,964	71,441
EBITDA	1,981	(409)	3,280	3,238	4,935
Core net profit	2,440	374	2,215	2,199	2,804
Core EPS (THB)	0.94	0.14	0.85	0.84	1.08
Core EPS growth (%)	(6.8)	(84.7)	492.4	(0.7)	27.5
Net DPS (THB)	0.42	0.07	0.42	0.52	0.61
Core P/E (x)	43.3	277.1	30.3	30.5	23.9
P/BV (x)	3.6	3.5	2.2	2.1	2.0
Net dividend yield (%)	1.0	0.2	1.6	2.0	2.3
ROAE (%)	8.0	(4.2)	7.2	8.7	9.6
ROAA (%)	1.7	0.2	1.2	1.1	1.4
EV/EBITDA (x)	91.5	nm	54.9	55.1	41.2
Net gearing (%) (incl perps)	157.6	177.7	220.0	196.4	224.2
Consensus net profit	-	-	2,153	2,776	3,282
MIBG vs. Consensus (%)	-	-	0.9	(1.8)	(3.9)

Natchaphon Rodjanarowan
 Natchaphon.rodjanarowan@maybank.com
 (66) 2658 5000 ext 1393

HOLD

Share Price THB 25.75
 12m Price Target THB 26.75 (+5%)

Company Description

BGRIM is a power producer. Over 70% of its installed capacity is gas-fired small power plants.

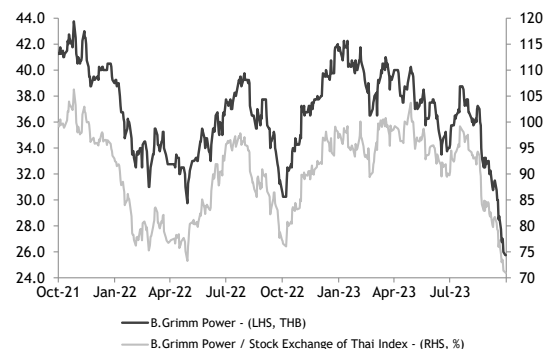
Statistics

52w high/low (THB)	42.25/25.75
3m avg turnover (USDm)	10.2
Free float (%)	31.6
Issued shares (m)	2,607
Market capitalisation	THB67.1B USD1.8B

Major shareholders:

Harald Link	23.8%
UBS AG SINGAPORE BRANCH	23.2%
B.GRIMM POWER (SINGAPORE) PTE.LTD.	10.5%

Price Performance



	-1M	-3M	-12M
Absolute (%)	(21)	(24)	(16)
Relative to index (%)	(15)	(21)	(8)

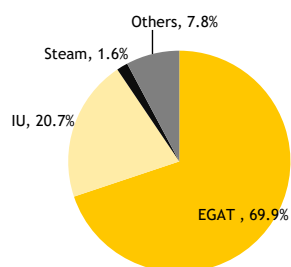
Source: FactSet

ESG@MAYBANK IBG
 Tear Sheet Insert

Value Proposition

- BGRIM is a power producer with over 2 GW of installed capacity. BGRIM's portfolio focuses on SPP-type of power purchase agreements (PPAs), which account for over 70% of its total capacity.
- BGRIM plans to expand its renewable energy (RE) capacity to reach 50% of its total capacity by 2030, up from 31% currently.
- BGRIM has a capital-management plan for funding new investments until 2030. BGRIM expects total investment of THB70b. The source of funds include: 1) cash of THB10b; 2) operating cash flow of THB45b; and 3) fund raising of THB145b.
- 20-23% of BGRIM's total revenue are from electricity sold to industrial users based on the Ft rate. The remaining revenue have a cost-pass-through mechanism.

Revenue breakdown (FY22)

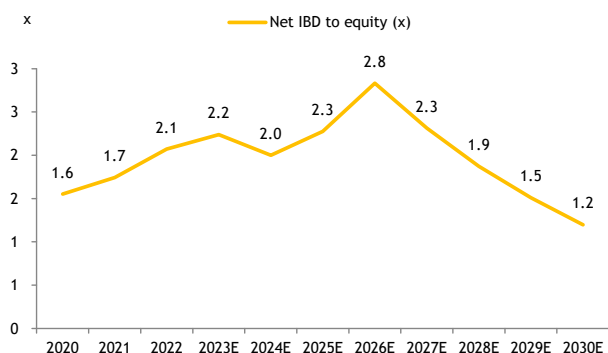


Source: Company

Financial Metrics

- We believe BGRIM's quarterly earnings had already bottomed out and it's in the recovery phase. As a result, we expect it to turn profitable in FY23 and net profit to grow by 25% YoY in FY24.
- We expect the net IBD (interest bearing debt)-to-equity ratio to increase during FY24-26 as it plans to invest in RE in South Korea. We expect the ratio to reach 2.8x, below its financial covenant of 3.0x.

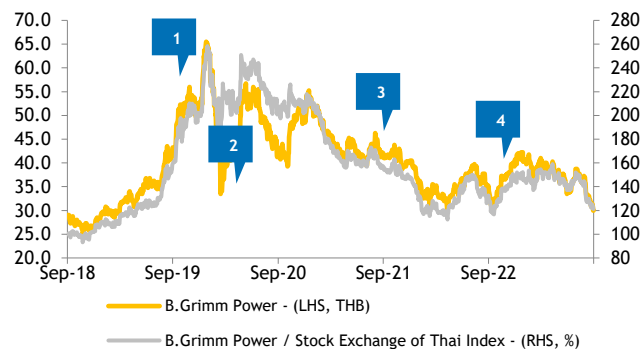
Forecasted net IBD-to-equity ratio (x)



Source: Company

Price Drivers

Historical share price trend



Source: Company, MST

1. Global policy rate cut cycle to reduce inflation.
2. First phase of Covid-19 in Thailand, causing the circuit breaker on the SET to be triggered twice.
3. Epidemic in the country resulting in low economic activities.
4. High energy prices due to the Russia-Ukraine war. High domestic natural gas pool price squeezed BGRIM's margins.

Swing Factors

Upside

- Widening of the spark spread, which is the spread between power tariffs and gas cost per unit.
- Potential sizable capacity expansion, which should be secured, would boost its long-term growth.
- Global policy rate cut cycle causing Thai government 10-year bond yields to trend down.

Downside

- A surge in energy price driving a sharp increase in natural gas price.
- Mismatch of power tariffs and natural gas price.
- Many unplanned plant overhauls in its portfolio.

Risk Rating & Score ¹	35.4 High Risk (145/274)
Score Momentum ²	+5.9
Last Updated	23 September 2023
Controversy Score ³ (Updated: 23 Sep 2023)	None - no evidence of controversies

Business Model & Industry Issues

- BGRIM's core operation of power generation through conventional power plants for most of its portfolio could create ESG issues going forward, but it should not be significant as its power plants are not fuelled by coal or lignite but by natural gas.
- BGRIM's is firmly on track to push forward its ESG goals. With the Asian Development Bank as a cornerstone investor in BGRIM, there is a strong focus on sustainability and governance. It is notable that women make up 50% of BGRIM's board of directors.
- We think BGRIM is in line with its peers in terms of the progress of transitioning towards RE. It plans to expand RE capacity in Thailand as well as overseas. BGRIM targets to increase RE capacity to over 50% of its installed capacity by 2030.
- BGRIM has demonstrated its commitment towards its ESG goals. Social and governance are strong points, while its major project with Siemens to digitalize and improve efficiency of its power plants should help push forward its environmental mandate.

Material E issues

- BGRIM targets to increase RE output share substantially by 2030, in line with the 2.0C pathway.
- Plans to increase RE to > 50% of installed capacity by 2030.
- Targets to achieve Scope 1 and 2 net emission intensity of less than 0.28 tCO₂e/MWh by 2030.
- BGRIM maintains an overall utilization rate of above 50%, and 27% for wind power and 15% for solar power.
- Committed to increase recycled waste to 88% by 2030 from 84.8% currently.
- Targets 100% compliance with wastewater discharge regulations and 100% compliance with air emission regulations.

Material S issues

- BGRIM supports Thailand's sports, health, and arts practitioners towards world-class performance through three outstanding projects: Royal Bangkok Symphony Orchestra, Support for Equestrian and Polo in Thailand, and Princess Mother's 90th Birthday Anniversary Scholarships.
- Targets to have 400,000 STEM (science, technology, engineering and mathematics) student beneficiaries by 2030. The project started in 2010 and 160,991 STEM students have benefited so far.
- Targets for all employees to be equipped with key relevant skills by 2030, and enhance employee engagement score to 85% by 2030 from 78% currently.
- Zero lost time injuries and zero fatalities.

Key G metrics and issues

- Half of the board of directors are females.
- 60% are independent directors.
- BGRIM has policies and guidelines for shareholders and stakeholders covering the following key areas: 1) equitable treatment of shareholders and support for shareholders' exercise of their rights; 2) prevention of inside information exploitation; 3) prevention of conflicts of interest; 4) anti-corruption; 5) responsibility for stakeholders and compensation for infringement; and 6) measures for violators.
- In 2022, B.Grimm Power underwent assessment under the AGM Checklist and it scored 100% with an 'excellent' rating by the Corporate Governance Report of Thai Listed Companies.
- BGRIM is in the process of establishing a system to conduct an annual evaluation to improve and manage risk of suppliers in accordance with the ESG framework: quality and delivery of goods and services, labour practices, transparent working systems, social and environmental responsibility and compliance with relevant laws and regulations.
- The company has no fraud or corruption allegations made against it.

¹**Risk Rating & Score** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. ²**Score Momentum** - indicates changes to the company's score since the last update - a **negative** integer indicates a company's improving risk score; a **positive** integer indicates a deterioration. ³**Controversy Score** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

Quantitative Parameters (Score: 67)						
	Particulars	Unit	2020	2021	2022	GULF TB (2022)
E	Scope 1 GHG emissions	m tCO ₂ e	5.2	5.6	5.2	10.5
	Scope 2 GHG emissions	m tCO ₂ e	0.002	0.003	0.006	0.1
	Total	m tCO₂e	5.2	5.6	5.2	10.6
	Scope 3 GHG emissions	m tCO ₂ e	0.32	1.36	1.32	3.1
	Total	m tCO₂e	5.53	6.95	6.49	13.7
	GHG intensity (Scope 1 and 2)	tCO ₂ e/t	390	380	380	388
	Green energy share of capacity	%	NA	NA	NA	1.4
	Water consumption	M cu mtr	20.7	20.5	18.5	15.4
	% of flyash recycled/treated	%	88%	100%	100%	100%
	% of recycled material used	%	77%	83%	85%	57%
	NO _x (excluding N ₂ O)	tons	2,823	3,529	3,045	2,316
	SO _x	tons	130	101	94	119
	SPM/particulate matter (PM10)	tons	93	164	124	149
S	% of women in workforce	%	30%	29%	30%	31%
	% of women in management roles	%	30%	29%	27%	43%
	Lost time injury frequency (LTIF) rate	number	0.00	1.14	0.00	0.00
G	MD/CEO salary as % of reported net profit	%	6%	7%	-8%	2%
	Top 10 employees salary as % of profit	%	N/A	N/A	N/A	N/A
	Independent directors tenure < 10 years	%	67%	60%	60%	58%
	Female directors on the Board	%	67%	50%	50%	33%

Qualitative Parameters (Score: 67)	
a) Is there an ESG policy in place and is there a standalone ESG committee or is it part of the risk committee?	<i>The company has a board sub-committee for corporate governance and sustainability that formulates policies. The company has various policies covering different aspects of ESG.</i>
b) Is the senior management salary linked to fulfilling ESG targets?	<i>No.</i>
c) Does the company follow the task force of climate related disclosures (TCFD) framework for ESG reporting?	<i>Yes.</i>
e) Does the company have a mechanism to capture Scope 3 emissions - which parameters are captured?	<i>Yes - it captures Scope 3 emissions from purchased goods and services, fuel and energy related activities and waste generated from operations.</i>
f) What are the 2-3 key carbon mitigation/water/waste management strategies adopted by the company?	<i>The company is increasing its non-fossil fuel capacity. It targets to be water neutral/positive and zero waste to landfill.</i>
g) Does carbon offset form part of the net zero/carbon neutrality target of the company?	<i>Yes, but at a very small level.</i>

Target (Score: 100)		
Particulars	Target	Achieved
Scope1&2 net emission intensity (tCO ₂ e/MWh)	<0.28	0.38
RE share of capacity at 50% by 2030	50%	31%
Zero Lost Time Injuries and Zero Fatalities	Zero	Zero
Commit to increase recycled waste to 88% by 2030	88%	85%
100% compliance to wastewater discharge regulations	100%	100%
Net Zero by 2050	2050	N/A
Impact		
NA		
Overall Score: 75		
As per our ESG matrix BGRIM has an overall score of 75.		

ESG score	Weights	Scores	Final Score
Quantitative	50%	67	22
Qualitative	25%	67	17
Target	25%	100	25
Total			75

As per our ESG assessment, BGRIM has established ESG policies that have been integrated well into its power generation and distribution operations and it has itemized medium to long-term targets for "E" and "S", which include a plan to aggressively dilute share of coal to total power mix. BGRIM has clear medium-term energy transition targets that may benefit its "E" score but can still add more project visibility to 50% share of capacity by 2030 and perhaps explore net-zero targets. BGRIM's overall ESG score is 64, which makes its ESG rating above average in our view (average ESG rating = 64).

1. Investment highlight

1.1 Earnings bottomed out in 4Q22

Mismatch of energy cost and electricity selling price

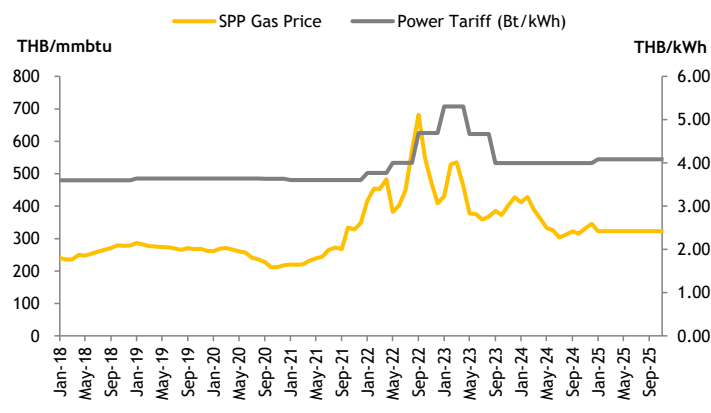
For 3Q22 and 4Q22, BGRIM report a loss of THB529m and THB545m, respectively, due to a mismatch between: 1) high natural gas pool price caused by a shortfall in output from the Erawan gas field and high imported LNG price; and 2) low power tariffs (low Ft rate), resulting in losses for EGAT (Electricity Generating Authority of Thailand) and huge debt.

Quarterly earnings already bottomed out

We believe problems caused by low Ft rate and high natural gas pool price have eased, and BGRIM's quarterly earnings had already bottomed out during 3Q22-4Q22. We foresee a downtrend in imported LNG price as concerns about the Russia-Ukraine war has eased, and output from the Erawan gas field has increased. Although we are in the Ft rate cut cycle, the Ft rate should still be higher YoY, and we expect the spark spread to also be higher YoY as a result.

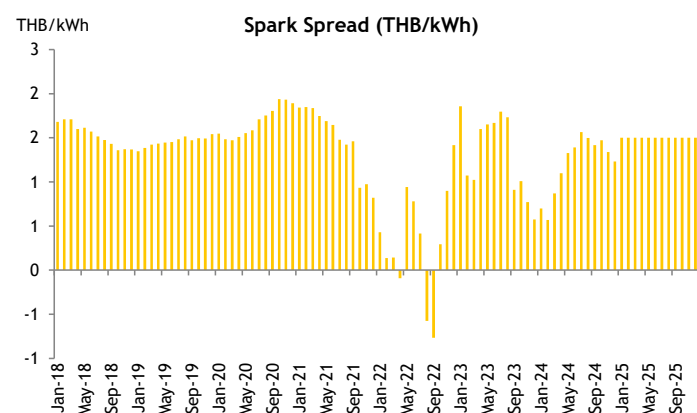
We also forecast earnings to continually recover in FY24E due to our expectation of lower natural gas pool price as a result of full production from the Erawan gas field and as imported LNG price normalises. We expect the Ft rate to remain constant. The FY24E spark spread should pick up starting in late-1Q24 onwards.

Fig 1: SPP gas price (mmbtu) vs power tariff



Source: EPPO, MST

Fig 2: Spark spread (gas cost per kWh vs power tariff)



Source: Investing.com, CME group, MST

Fig 3: Quarterly results and FY23-25 earnings forecasts

	2Q22	3Q22	4Q22	1Q23	2Q23	2023E	2024E	2025E
Financial								
Revenue (THBm)	14,676	18,383	14,579	15,750	14,891	75,067	74,964	71,441
Gross profit (THBm)	1,693	1,660	1,676	2,349	2,664	11,159	11,531	14,179
Operating profit (THBm)	1,240	1,199	1,116	1,812	2,193	8,726	8,848	11,483
Net profit (THBm)	-193	-529	-545	399	678	2,173	2,725	3,155
Core profit (THBm)	147	25	168	379	686	2,215	2,199	2,804
Key ratio								
GPM (%)	11.5%	9.0%	11.5%	14.9%	17.9%	14.9%	15.4%	19.8%
Net profit margin (%)	-1.3%	-2.9%	-3.7%	2.5%	4.6%	2.9%	3.6%	4.4%
Operation								
Operating capacity (MWe)	1,894	2,034	2,223	2,223	2,342	2,646	2,746	2,814
Sales volume (GWh)	3,299	3,394	2,932	3,095	3,244	16,814	18,529	18,833
Assumption								
SPP gas price (THB/mmbtu)	422	558	481	483	404	418	360	305
Ft rate (THB/kWh)	0.17	0.48	0.93	1.55	1.13	0.90	0.24	0.24
Average Fx rate (THB/USD)	34.4	36.4	36.3	34.0	34.5	34.9	33.4	31.5
Ending Fx rate (THB/USD)	35.4	37.8	34.6	34.2	35.4	34.8	32.5	31.0

Source: Company, MST

1.2 Long-life capacity and expansion plan

Power plants replaced

BGRIM had already commissioned all its new SPPs (small power producers), totalling 479 MW of capacity, replacing SPPs retired during 2021-22 totalling 241 MW. As such, no power plant in its portfolio will be retired until 2037, meaning BGRIM has limited risk regarding renewal or replacing conventional power plants despite the current high reserve margin.

Fig 4: SPP replacement details

Power plant	PPA	COD	% Stake	Installed capacity (MW)	Equity capacity (Mwe)
ABP1R (replacement)	SPP	Nov-22	51%	140	71
ABP2R (replacement)	SPP	Dec-22	51%	140	72
BPLC1R (replacement)	SPP	Jul-22	100%	140	140
BGPM1R (replacement)	SPP	Dec-22	70%	140	98
BGPM2R (replacement)	SPP	Mar-23	70%	140	98
Total			68%	700	479

Source: Company, MST

Capacity expansion

BGRIM has announced potential capacity expansion totalling 1,031 MW during FY23-30. The largest capacity is the Jodo Wind power project in South Korea in which BGRIM has an equity capacity of 362 MW set to be commissioned in 2027. We have already factored in all the potential new capacity into our forecasts. As a result, we forecast BGRIM's earnings to expand by an 8-year CAGR of 15%, or from THB2.2b in FY23E to THB5.8b in FY30E.

Fig 5: Projects under development

Projects	Country	Power type	SCOD	% Stake	Installed capacity (MW)	Equity capacity (Mwe)	Progress
BGPAT2	Thailand	Gas-fired Cogen	2023	70%	140	98	Construction
BGPAT3	Thailand	Gas-fired Cogen	2023	70%	140	98	Construction
U-Tapao (phase1)	Thailand	Solar+ESS	2023	100%	68	68	Construction
U-Tapao (phase2)	Thailand	Gas	2024	100%	80	80	Construction
Tadsakhoi	Laos	Hydro	2026	70%	30	21	Waiting for construction
Nam Khao 1-5	Laos	Hydro	2026-30	72%	68	49	Waiting for construction
Huong Hoa 1	Vietnam	Wind	2025	80%	48	38	Construction
Lohas Gifu	Japan	Solar	2024	49%	20	10	Construction
Kopos	Korea	Wind	2024	50%	20	10	Construction
Jodo Wind Power	Korea	Wind	2027	70%	517	362	Share purchase agreement
Shinan-Eoui Wind Power	Korea	Wind	3Q25	15%	99	15	Share purchase agreement
Cheonsa-Eoui Wind Power	Korea	Wind	3Q25	15%	99	15	Share purchase agreement
Gunhung Offshore Wind Power	Korea	Wind	1Q26	70%	240	168	Share purchase agreement
Total				66%	1,569	1,031	

Source: Company, MST

1.3 Limited upside from domestic RE

Potential upside of just 1.3% to our fair value estimate

According to the latest domestic RE tenders, BGRIM has been awarded projects totalling equity capacity of 161 MW, consisting of: 1) 145 MW of solar farms; and 2) 16 MW of wind farms. The projects awarded are scheduled to be commissioned during FY26-30. These projects are awaiting the signing of PPAs with the related parties.

To capture the potential upside from the projects awarded, we derive a 25-year DCF valuation with key assumptions of: 1) 25-year PPA for each project; 2) debt portion of 75%; 3) WACC of 4.7%; and 4) IRR of 8.1%. As a result, there will be just 1.3% potential upside to our fair value estimate, and 2.6% potential upside to our FY30 earnings forecast.

Fig 6: All RE projects awarded

Projects	% Stake	Installed capacity (MW)	Equity capacity (Mwe)	SCOD
1 Wind	100%	16	16	2030
2 Solar	100%	20	20	2027
3 Solar	55%	10	6	2030
4 Solar	55%	6	3	2028
5 Solar	55%	10	6	2028
6 Solar	40%	20	8	2027
7 Solar	40%	20	8	2026
8 Solar	40%	108	43	2028
9 Solar	40%	129	52	2027
Total	48%	339	161	

Source: Company, MST

Fig 7: PPA assumptions for projects awarded

Awarded MW estimates	
Power type	Solar farm
PPA capacity (MW)	323
% Stake	45%
Equity capacity (MWe)	145
Tariff (Bt/kWh)	2.1679
Investment per MW (THBmn)	25
Power type	Wind farm
PPA capacity (MW)	16
% Stake	100%
Equity capacity (MWe)	16
Tariff (Bt/kWh)	3.1014
Investment per MW (THBmn)	70

Source: Company, MST

Fig 8: Valuation of the projects awarded

Valuation assumption	
Method	DCF
Duration	25 years
Debt : Equity	75:25
WACC	5.07%
Return assumption	
IRR (%)	8.1%
Annually earnings (THBmn)	153
% upside to 2030E earnings	2.6%
Incremental value (THB/sh)	0.34
% upside to TP	1.3%

Source: Company, MST

2. Fully valued, valuation unattractive

Initiate at HOLD

We initiate coverage of BGRIM with a HOLD as: 1) capacity expansion to enhance its earnings growth will be limited; 2) MW awarded from the latest domestic tender was limited; 3) uncertainty about power tariffs from the government (among peers, BGRIM's earnings is one of the most sensitive to such external factors); and 4) trading at -1SD of 12M forward PER of 25.4x, which looks less attractive when compared to the average of 24.7x for its peers.

Target price of THB26.75

Our end-FY24 DCF-based target price of THB26.75 uses a WACC of 5.1%. Our WACC is based on: 1) cost of debt of 3.5%; and 2) cost of equity of 10.4%, consisting of a risk-free rate of 3.0%, beta of 1.2x, and market risk premium of 7.4%. Our target price implies 25.6x FY24E PER, and 1.4x FY24E PBV.

FYE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
Key Metrics					
P/E (reported) (x)	50.4	nm	30.9	24.6	21.3
Core P/E (x)	43.3	277.1	30.3	30.5	23.9
P/BV (x)	3.6	3.5	2.2	2.1	2.0
P/NTA (x)	3.6	3.5	2.2	2.1	2.0
Net dividend yield (%)	1.0	0.2	1.6	2.0	2.3
FCF yield (%)	nm	nm	nm	nm	0.7
EV/EBITDA (x)	91.5	nm	54.9	55.1	41.2
EV/EBIT (x)	25.8	42.7	20.6	20.2	17.7

INCOME STATEMENT (THB m)

Revenue	46,628.3	62,395.3	75,066.7	74,963.9	71,440.7
EBITDA	1,980.6	(408.8)	3,280.0	3,237.7	4,935.5
Amortisation	0.0	0.0	0.0	0.0	0.0
EBIT	7,020.8	4,472.0	8,726.1	8,848.1	11,482.9
Net interest income / (exp)	(4,105.5)	(3,926.2)	(4,637.0)	(3,536.9)	(4,481.3)
Associates & JV	44.1	(172.1)	107.0	96.6	107.3
Other pretax income	756.1	(1,315.9)	10.6	(132.4)	(88.3)
Pretax profit	3,715.4	(942.1)	4,206.7	5,275.4	7,020.6
Income tax	(298.2)	44.0	(337.6)	(423.4)	(1,404.1)
Minorities	(1,141.5)	(346.0)	(1,696.0)	(2,126.8)	(2,461.9)
Discontinued operations	0.0	0.0	0.0	0.0	0.0
Reported net profit	2,275.7	(1,244.1)	2,173.1	2,725.2	3,154.5
Core net profit	2,440.2	373.9	2,215.2	2,198.9	2,803.7

BALANCE SHEET (THB m)

Cash & Short Term Investments	25,706.5	28,906.6	29,544.0	36,963.4	35,342.4
Accounts receivable	8,983.1	9,253.8	11,311.4	11,295.9	10,765.0
Inventory	971.3	832.9	875.4	868.9	784.4
Reinsurance assets	0.0	0.0	0.0	0.0	0.0
Property, Plant & Equip (net)	84,803.8	94,071.0	108,366.9	108,557.4	132,794.9
Intangible assets	13,783.2	14,098.7	11,677.8	11,171.7	10,662.8
Investment in Associates & JVs	2,898.9	4,131.9	5,768.2	5,768.2	8,738.2
Other assets	12,050.8	19,355.8	20,716.6	20,705.6	20,327.2
Total assets	149,197.6	170,650.7	188,260.4	195,331.1	219,415.1
ST interest bearing debt	792.5	413.5	413.5	413.5	413.5
Accounts payable	5,690.5	8,004.8	8,754.5	8,689.4	7,844.1
Insurance contract liabilities	0.0	0.0	0.0	0.0	0.0
LT interest bearing debt	89,240.9	103,423.6	128,032.8	131,679.8	152,593.3
Other liabilities	12,658.0	16,641.0	6,110.0	6,109.0	6,085.0
Total Liabilities	108,382.1	128,483.1	143,310.3	146,891.5	166,936.3
Shareholders Equity	29,471.2	29,727.6	30,814.1	32,176.7	33,754.0
Minority Interest	11,344.4	12,440.1	14,136.1	16,262.9	18,724.9
Total shareholder equity	40,815.5	42,167.7	44,950.2	48,439.6	52,478.8
Total liabilities and equity	149,197.6	170,650.7	188,260.4	195,331.1	219,415.1

CASH FLOW (THB m)

Pretax profit	3,715.4	(942.1)	4,206.7	5,275.4	7,020.6
Depreciation & amortisation	(5,040.1)	(4,880.7)	(5,446.1)	(5,610.4)	(6,547.4)
Other operating cash flow	0.0	0.0	0.0	0.0	0.0
Cash flow from operations	(1,324.8)	(5,822.9)	(1,239.5)	(335.1)	473.2
Free cash flow	(1,324.8)	(5,822.9)	(1,239.5)	(335.1)	473.2
Other invest/financing cash flow	7,921.0	9,022.9	1,876.9	7,754.4	(2,094.1)
Effect of exch rate changes	0.0	0.0	0.0	0.0	0.0
Net cash flow	6,596.2	3,200.0	637.5	7,419.3	(1,620.9)

FYE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
Key Ratios					
Growth ratios (%)					
Revenue growth	5.8	33.8	20.3	(0.1)	(4.7)
EBITDA growth	11.1	nm	nm	(1.3)	52.4
EBIT growth	(2.5)	(36.3)	95.1	1.4	29.8
Pretax growth	(6.8)	nm	nm	25.4	33.1
Reported net profit growth	4.6	nm	nm	25.4	15.8
Core net profit growth	(6.8)	(84.7)	492.4	(0.7)	27.5
Profitability ratios (%)					
EBITDA margin	4.2	nm	4.4	4.3	6.9
EBIT margin	15.1	7.2	11.6	11.8	16.1
Pretax profit margin	8.0	nm	5.6	7.0	9.8
Payout ratio	48.1	nm	50.0	50.0	50.0
DuPont analysis					
Net profit margin (%)	4.9	nm	2.9	3.6	4.4
Revenue / Assets (x)	0.3	0.4	0.4	0.4	0.3
Assets / Equity (x)	5.1	5.7	6.1	6.1	6.5
ROAE (%)	8.0	(4.2)	7.2	8.7	9.6
ROAA (%)	1.7	0.2	1.2	1.1	1.4
Liquidity & Efficiency					
Cash conversion cycle	16.7	14.4	6.9	9.7	8.8
Days receivable outstanding	61.0	52.6	49.3	54.3	55.6
Days inventory outstanding	9.5	5.8	4.8	4.9	5.2
Days payables outstanding	53.8	44.0	47.2	49.5	52.0
Dividend cover (x)	2.1	(7.3)	2.0	2.0	2.0
Current ratio (x)	3.2	2.5	5.3	6.1	6.5
Leverage & Expense Analysis					
Asset / Liability (x)	1.4	1.3	1.3	1.3	1.3
Net gearing (%) (incl perps)	157.6	177.7	220.0	196.4	224.2
Net gearing (%) (excl. perps)	157.6	177.7	220.0	196.4	224.2
Net interest cover (x)	1.7	1.1	1.9	2.5	2.6
Debt / EBITDA (x)	nm	nm	nm	nm	nm
Capex / revenue (%)	na	na	na	na	na
Net debt / (net cash)	64,326.8	74,930.6	98,902.2	95,129.9	117,664.4

Source: Company; Maybank IBG Research

Research Offices

ECONOMICS

Suhaimi ILIAS
Chief Economist
Malaysia | Philippines | Global
(603) 2297 8682
suhaimi_ili@maybank-ib.com

CHUA Hak Bin
Regional Thematic Macroeconomist
(65) 6231 5830
chuahb@maybank.com

Dr Zamros DZULKAFI
Malaysia | Philippines
(603) 2082 6818
zamros.d@maybank-ib.com

Erica TAY
China | Thailand
(65) 6231 5844
erica.tay@maybank.com

Brian LEE Shun Rong
Indonesia | Singapore | Vietnam
(65) 6231 5846
brian.lee1@maybank.com

Fatin Nabila MOHD ZAINI
(603) 2297 8685
fatinnabila.mohdzaini@maybank-ib.com

Luong Thu Huong
(65) 6231 8467
hana.thu@maybank.com

FX

Saktiandi SUPAAT
Head of FX Research
(65) 6320 1379
saktiandi@maybank.com

Fiona LIM
(65) 6320 1374
fionallim@maybank.com

Alan LAU
(65) 6320 1378
alanlau@maybank.com

Shaun LIM
(65) 6320 1371
shaunlim@maybank.com

STRATEGY

Anand PATHMAKANTHAN
ASEAN
(603) 2297 8783
anand.pathmakanthan@maybank-ib.com

FIXED INCOME

Winson PHOON, FCA
Head of Fixed Income
(65) 6340 1079
winsonphoon@maybank.com

SE THO Mun Yi, CFA
(603) 2074 7606
munyi.st@maybank-ib.com

PORTFOLIO STRATEGY

ONG Seng Yeow
(65) 6231 5839
ongsengyeow@maybank.com

MIBG SUSTAINABILITY RESEARCH

Jigar SHAH
Head of Sustainability Research
(91) 22 4223 2632
jigars@maybank.com

Neerav DALAL
(91) 22 4223 2606
neerav@maybank.com

REGIONAL EQUITIES

Anand PATHMAKANTHAN
Head of Regional Equity Research
(603) 2297 8783
anand.pathmakanthan@maybank-ib.com

WONG Chew Hann, CA
Head of ASEAN Equity Research
(603) 2297 8686
wchewh@maybank-ib.com

MALAYSIA

Anand PATHMAKANTHAN *Head of Research*
(603) 2297 8783
anand.pathmakanthan@maybank-ib.com
• Strategy

WONG Chew Hann, CA
(603) 2297 8686
wchewh@maybank-ib.com
• Equity Strategy
• Non-Bank Financials (stock exchange)
• Construction & Infrastructure

Desmond CH'NG, BFP, FCA
(603) 2297 8680
desmond.chng@maybank-ib.com
• Banking & Finance

ONG Chee Ting, CA
(603) 2297 8678
ct.ong@maybank-ib.com
• Plantations - Regional

YIN Shao Yang, CPA
(603) 2297 8916
samuel.y@maybank-ib.com
• Gaming - Regional
• Media • Aviation • Non-Bank Financials

TAN Chi Wei, CFA
(603) 2297 8690
chiwei.t@maybank-ib.com
• Power • Telcos

WONG Wei Sum, CFA
(603) 2297 8679
weisum@maybank-ib.com
• Property • Glove

Jade TAM
(603) 2297 8687
jade.tam@maybank-ib.com
• Consumer Staples & Discretionary

Nur Farah SYIFAA
(603) 2297 8675
nurfarahsyifaa.mohamadfuad@maybank-ib.com
• Renewable Energy • REITs

LOH Yan Jin
(603) 2297 8687
lohyanjin.loh@maybank-ib.com
• Ports • Automotive • Technology (EMS)

Arvind JAYARATNAM
(603) 2297 8692
arvind.jayaratnam@maybank.com
• Technology (Semicon & Software)

Jeremie YAP
(603) 2297 8688
jeremie.yap@maybank-ib.com
• Oil & Gas • Petrochemicals

TEE Sze Chiah *Head of Retail Research*
(603) 2082 6858
szechiah.t@maybank-ib.com
• Retail Research

Nik Ihsan RAJA ABDULLAH, MSTA, CFTE
(603) 2297 8694
nikmohdihsan.ra@maybank-ib.com
• Chartist

Amirah AZMI
(603) 2082 8769
amirah.azmi@maybank-ib.com
• Retail Research

SINGAPORE

Thilan WICKRAMASINGHE *Head of Research*
(65) 6231 5840
thilanw@maybank.com
• Banking & Finance - Regional
• Consumer

Eric ONG
(65) 6231 5849
ericong@maybank.com
• Healthcare • Transport • SMIDs

Kelvin TAN
(65) 6231 5837
kelvin.tan1@maybank.com
• Telcos • Industrials

LI Jialin
(65) 6231 5845
jialin.li@maybank.com
• REITs

Jarick SEET
(65) 6231 5848
jarick.seet@maybank.com
• Technology

Krishna GUHA
(65) 6231 5842
krishna.guha@maybank.com
• REITs

PHILIPPINES

Jacqui de JESUS *Head of Research*
(63) 2 8849 8840
jacqui.dejesus@maybank.com
• Strategy • Conglomerates

Rachelleen RODRIGUEZ, CFA
(63) 2 8849 8843
rachelleen.rodriguez@maybank.com
• Banking & Finance • Transport • Telcos
• Utilities

Daphne SZE
(63) 2 8849 8847
daphne.sze@maybank.com
• Consumer

Alexa Mae CARVAJAL
(63) 2 8849 8838
alexamae.carvajal@maybank.com
• Consumer • Gaming • Property • REITs

THAILAND

Chak REUNGSINPINYA *Head of Research*
(66) 2658 5000 ext 1399
chak.reungsinpinya@maybank.com
• Strategy • Energy

Jesada TECHAHUSDIN, CFA
(66) 2658 5000 ext 1395
jesada.t@maybank.com
• Banking & Finance

Wasu MATTANAPOTCHANART
(66) 2658 5000 ext 1392
wasu.m@maybank.com
• Telcos • REITs

Surachai PRAMUALCHAROENKIT
(66) 2658 5000 ext 1470
surachai.p@maybank.com
• Auto • Conmat • Contractor • Steel

Suttatip PEERASUB
(66) 2658 5000 ext 1430
suttatip.p@maybank.com
• Food & Beverage • Commerce

INDONESIA

Jeffrorenberg CHENLIM *Head of Research*
(62) 21 8066 8680
jeffrorenberg.lim@maybank.com
• Strategy • Banking & Finance • Property

Willy GOUTAMA
(62) 21 8066 8500
willy.goutama@maybank.com
• Consumer

Etta Rusdiana PUTRA
(62) 21 8066 8683
etta.putra@maybank.com
• Telcos • Internet • Construction

William Jefferson W
(62) 21 8066 8563
william.jefferson@maybank.com
• Property

Adi WICAKSONO
(62) 21 8066 8686
adi.wicaksono@maybank.com
• Plantations

Satriawan HARYONO, CEWA, CTA
(62) 21 8066 8682
satriawan@maybank.com
• Chartist

VIETNAM

Quan Trong Thanh *Head of Research*
(84 28) 44 555 888 ext 8184
thanh.quan@maybank.com
• Strategy • Banks

Hoang Huy, CFA
(84 28) 44 555 888 ext 8181
hoanghuy@maybank.com
• Strategy • Technology

Le Nguyen Nhat Chuyen
(84 28) 44 555 888 ext 8082
chuyen.le@maybank.com
• Oil & Gas • Logistics

Nguyen Thi Sony Tra Mi
(84 28) 44 555 888 ext 8084
trami.nguyen@maybank.com
• Consumer Discretionary

Tran Thi Thanh Nhan
(84 28) 44 555 888 ext 8088
nhan.tran@maybank.com
• Consumer Staples

Nguyen Le Tuan Loi
(84 28) 44 555 888 ext 8182
loi.nguyen@maybank.com
• Property

Nguyen Thanh Hai
(84 28) 44 555 888 ext 8081
thanhhai.nguyen@maybank.com
• Industrials

Nguyen Thanh Lam
(84 28) 44 555 888 ext 8086
thanhlam.nguyen@maybank.com
• Retail Research

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 **Malaysia**

Maybank Investment Bank Berhad
(A Participating Organisation of
Bursa Malaysia Securities Berhad)
33rd Floor, Menara Maybank,
100 Jalan Tun Perak,
50050 Kuala Lumpur
Tel: (603) 2059 1888;
Fax: (603) 2078 4194

Stockbroking Business:
Level 8, Tower C, Dataran Maybank,
No.1, Jalan Maarof
59000 Kuala Lumpur
Tel: (603) 2297 8888
Fax: (603) 2282 5136

 **Singapore**

Maybank Securities Pte Ltd
Maybank Research Pte Ltd
50 North Canal Road
Singapore 059304

Tel: (65) 6336 9090

 **Indonesia**

PT Maybank Sekuritas Indonesia
Sentral Senayan III, 22nd Floor
Jl. Asia Afrika No. 8
Gelora Bung Karno, Senayan
Jakarta 10270, Indonesia

Tel: (62) 21 2557 1188
Fax: (62) 21 2557 1189

 **Thailand**

Maybank Securities (Thailand) PCL
999/9 The Offices at Central World,
20th - 21st Floor,
Rama 1 Road Pathumwan,
Bangkok 10330, Thailand

Tel: (66) 2 658 6817 (sales)
Tel: (66) 2 658 6801 (research)

 **London**

Maybank Securities (London) Ltd
PNB House
77 Queen Victoria Street
London EC4V 4AY, UK

Tel: (44) 20 7332 0221
Fax: (44) 20 7332 0302

 **India**

MIB Securities India Pte Ltd
1101, 11th floor, A Wing, Kanakia
Wall Street, Chakala, Andheri -
Kurla Road, Andheri East,
Mumbai City - 400 093, India

Tel: (91) 22 6623 2600
Fax: (91) 22 6623 2604

 **Vietnam**

Maybank Securities Limited
Floor 10, Pearl 5 Tower,
5 Le Quy Don Street,
Vo Thi Sau Ward, District 3
Ho Chi Minh City, Vietnam

Tel : (84) 28 44 555 888
Fax : (84) 28 38 271 030

 **Hong Kong**

**MIB Securities (Hong Kong)
Limited**
28/F, Lee Garden Three,
1 Sunning Road, Causeway Bay,
Hong Kong

Tel: (852) 2268 0800
Fax: (852) 2877 0104

 **Philippines**

Maybank Securities Inc
17/F, Tower One & Exchange
Plaza
Ayala Triangle, Ayala Avenue
Makati City, Philippines 1200

Tel: (63) 2 8849 8888
Fax: (63) 2 8848 5738

 **Sales Trading**
Indonesia

Helen Widjaja
helen.widjaja@maybank.com
(62) 21 2557 1188

Philippines

Keith Roy
keith_roy@maybank.com
Tel: (63) 2 848-5288

London

Greg Smith
gsmith@maybank.com
Tel: (44) 207-332-0221

India

Sanjay Makhija
sanjaymakhija@maybank.com
Tel: (91)-22-6623-2629

www.maybank.com/investment-banking
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