

GLOBAL POWER SYNERGY
THAILAND / UTILITIES

GPSC TB

BUY

หุ้น Laggard ในกลุ่มสาธารณูปโภค

- เราคิดว่า GPSC เป็นหุ้น Laggard ในกลุ่มสาธารณูปโภคที่เราคิดว่ากำไรมีศักยภาพในการเติบโตค่อนข้างสูงในช่วง 2H23-2025
- หุ้นมีปัจจัยหนุนสำคัญอยู่ที่อัตราค่าไฟฟ้าที่เพิ่มขึ้นของโรงไฟฟ้าขนาดเล็ก (SPP) จากราคาพลังงานที่ลดลงและส่วนแบ่งกำไรที่สูงขึ้นจาก AEPL และ CFXD
- กลับมาเริ่มบทวิเคราะห์ GPSC ด้วยคำแนะนำซื้อที่ราคาเป้าหมาย 60.3 บาท

TARGET PRICE	THB60.30
CLOSE	THB51.25
UP/DOWNSIDE	+17.7%
TP vs CONSENSUS	-14.1%

KEY STOCK DATA

YE Dec (THB m)	2022	2023E	2024E	2025E
Revenue	123,685	92,257	87,359	83,614
Net profit	891	4,434	5,803	7,714
EPS (THB)	0.32	1.57	2.06	2.74
vs Consensus (%)	-	(8.8)	(12.4)	4.8
EBITDA	14,783	16,541	18,397	21,849
Recurring net profit	2,779	4,434	5,803	7,714
Core EPS (THB)	0.99	1.57	2.06	2.74
EPS growth (%)	(68.8)	59.5	30.9	32.9
Core P/E (x)	52.0	32.6	24.9	18.7
Dividend yield (%)	1.0	2.5	2.9	2.9
EV/EBITDA (x)	16.9	15.4	13.4	11.0
Price/book (x)	1.4	1.3	1.3	1.3
Net debt/Equity (%)	82.7	83.1	74.2	65.8
ROE (%)	2.6	4.2	5.4	7.0

แนวโน้มช่วง 2H23 อยู่ในเกณฑ์ดีในขณะที่ราคาหุ้นล้าหลัง

เราคาดว่ากำไรต่อหุ้น (EPS) ในช่วง 2H23 จะโต 107% h-h จากฐานที่ต่ำในช่วง 1H23 จากราคาพลังงาน (ก๊าซและถ่านหิน) ที่ลดลงซึ่งช่วยชดเชยค่าธรรมเนียมเชื้อเพลิง (Ft) ที่ลดลงในระดับปานกลาง เราคาดว่าอัตรากำไรของ SPP จะปรับตัวดีขึ้นและเป็นปัจจัยหนุนกำไรที่สำคัญในช่วง 2H23 พร้อมส่วนแบ่งกำไรที่เพิ่มขึ้นตามฤดูกาลที่ดีของ XPCL (โรงไฟฟ้าพลังน้ำในลาว) และ CFXD (โรงไฟฟ้าพลังลมในไต้หวัน) ราคาหุ้นในช่วง 6M ปรับตัวลดลง 24% นับว่าลดลงสูงสุดเมื่อเทียบกับบริษัทอื่นในกลุ่ม จากราคาหุ้นที่ล้าหลังประกอบกับแนวโน้มกำไรที่อยู่ในเกณฑ์ดี เราคิดว่านี่เป็นเวลาที่ดีในการสะสม หุ้นอาจมีแรงกดดันบางส่วนจากความไม่แน่นอนเกี่ยวกับนโยบายของรัฐบาลใหม่ในเรื่องการลดลงของค่า Ft อย่างไรก็ตามเราเชื่อว่าราคาหุ้นอาจปรับตัวขึ้นหลังการประชุมคณะรัฐมนตรีในวันที่ 13 ก.ย. 2023

คาด EPS ระยะยาวจะโตในระดับที่น่าสนใจที่ 31-33% ในปี 2024-25

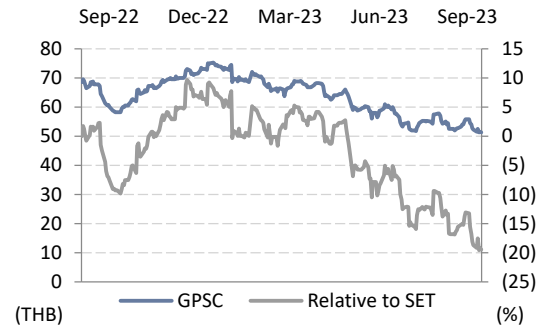
นอกจากกำไร 2H23 ที่คาดว่าจะอยู่ในเกณฑ์ดีแล้ว เราคาดว่า EPS จะโตในระดับที่น่าสนใจที่ 31% และ 33% ในปี 2024-25 ส่วนมากจาก 1.) ราคาพลังงาน (ก๊าซและถ่านหิน) ที่กลับมาเป็นปกติซึ่งจะช่วยเพิ่มอัตรากำไรของ SPP; 2.) ส่วนแบ่งกำไรที่เพิ่มขึ้นของ AEPL หลังขาดทุนจากต้นทุนดอกเบี้ยที่อยู่ในระดับสูงในปี 2021-22; 3.) กำหนดจ่ายไฟฟ้าเข้าระบบเชิงพาณิชย์ (SCOD) เต็มกำลังของ CFXD ซึ่งเป็นโรงไฟฟ้าพลังลมในไต้หวันใน 1Q24; และ 4.) ประสิทธิภาพของโรงไฟฟ้าที่เพิ่มขึ้นของ Glow SPP Phase 5 และ GHECO-One ซึ่งเป็นโรงไฟฟ้าขนาดใหญ่ (IPP) ซึ่งจะทำให้ปริมาณขายของ SPP เพิ่มขึ้นและทำให้ได้กำไรพร้อมจ่ายสูงขึ้น

โครงการที่กำลังพัฒนาเป็นไปตามแผน

โครงการปัจจุบันที่กำลังพัฒนาเป็นไปตามแผนโดยประกอบด้วย 1.) โรงไฟฟ้าทดแทน Glow SPP2 (98MW, SCOD: มี.ค. 2024/เม.ย. 2024, คืบหน้า 62.65%); 2.) Energy Recovery Unit (ERU, 250MW, SCOD: 2025, คืบหน้า 90.67%); และ 3.) Chang Fang Xidao (CFXD, 149MW, full SCOD: 1Q24) เราคาดว่าจะมีโครงการ RE ที่มีขนาดใหญ่ขึ้นในอนาคตสอดคล้องกับการเติบโตทางยุทธศาสตร์และความสามารถของฐานะทางการเงินที่มั่นคงของบริษัท

กลับมาเริ่มบทวิเคราะห์ GPSC ด้วยคำแนะนำซื้อที่ราคาเป้าหมาย 60.3 บาท

เรากลับมาเริ่มบทวิเคราะห์ GPSC ด้วยคำแนะนำซื้อที่ราคาเป้าหมาย 60.3 บาท ราคาเป้าหมายของเราคิดจากการประเมินมูลค่าด้วยวิธี DCF โดยมีค่า WACC ที่ 5.9% ค่าแนะนำของเรามีความเสี่ยงประกอบด้วย 1.) การปรับขึ้นของราคาพลังงาน; 2.) การลดลงของค่า Ft; 3.) การปิดโรงไฟฟ้านอกแผน; และ 4.) ผลที่ไม่คาดคิดจากข้อพิพาทระหว่างคู่สัญญาในการจัดหาถ่านหิน



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(5.1)	(12.8)	(25.7)
Relative to country (%)	(6.9)	(12.1)	(21.3)
Mkt cap (USD m)	4,067		
3m avg. daily turnover (USD m)	12.9		
Free float (%)	25		
Major shareholder	PTT Plc (47%)		
12m high/low (THB)	75.50/50.50		
Issued shares (m)	2,819.73		

Sources: Bloomberg consensus; FSSIA estimates



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PREPARED BY FSS INTERNATIONAL INVESTMENT ADVISORY SECURITIES CO LTD (FSSIA). ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT

บทวิเคราะห์ฉบับนี้แปลมาจากต้นฉบับภาษาอังกฤษ ที่ออกรายงานเมื่อวันที่ 11 กันยายน 2023

Investment thesis

We have a BUY rating on GPSC and think that it is a good time to accumulate the stock because of its lagging share price despite having a relatively high EPS growth outlook compared to peers. The company's financial performance in 2023-25E should be supported by energy price normalisation, the profit turnaround of its flagship solar business in India (AEPL), the full COD of wind in Taiwan (CFXD) and other expansion projects in the pipeline.

The company was established as a power investment arm of PTT Group – Thailand's leading energy company. GPSC has long leveraged its solid ties with the group to expand its electricity generation capacity growth and capture domestic and international opportunities. Currently, GPSC generates electricity mainly from natural gas (52%), and most of its capacity is aimed at supporting PTT Group companies, including PTT (PTT TB, NR), PTT Global Chemical (PTTGC TB, NR), Thai Oil (TOP TB, BUY, TP THB56.80) and IRPC (IRPC TB, NR).

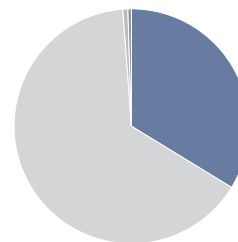
Company profile

GPSC is a power flagship company of PTT Group and is one of the largest power producers in Thailand. Its business portfolio includes gas-fired power plants, coal-fired power plants, renewables, and a battery business. The company has footprints in Thailand, Laos, India, Taiwan and China.

www.gpscgroup.com

Principal activities (revenue, 2022)

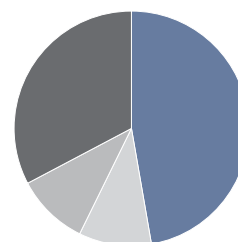
- Independent power producer - 33.7 %
- Small power producer - 65.1 %
- Very small power producer - 0.7 %
- Others - 0.5 %



Source: Global Power Synergy

Major shareholders

- PTT Plc - 47.3 %
- PTTGC Plc - 10.0 %
- TOP Plc - 10.0 %
- Others - 32.7 %



Source: Global Power Synergy

Catalysts

Key potential catalysts are 1) falling energy prices (i.e. gas and coal); 2) higher Ft; 3) new M&As; and 4) the start-up of the GHECO-One power plant.

Risks to our call

The downside risks to our DCF-based TP on GPSC include 1) lower-than-expected demand for electricity in Thailand; 2) higher-than-expected energy prices (i.e. coal and gas); and 3) lower-than-expected demand from industrial users.

Event calendar

Date	Event
Early-Nov-2023	3Q23 results announcement
Mid-Nov-2023	3Q23 analyst meeting

Key assumptions

	2021	2022	2023E	2024E	2025E
IPP gas price (THB/mmbtu)	257	465	460	361	351
SPP gas price (THB/mmbtu)	266	478	430	370	360
Coal price (USD/tonne)	80	192	210	150	100
Ft (THB/kWh)	(0.15)	0.40	1.04	0.60	0.40

Source: FSSIA estimates

Earnings sensitivity

- For every THB1/mmbtu increase in gas price, we estimate 2023 earnings would decline THB30m and vice versa, all else being equal.
- For every THB0.01/kWh increase in the fuel tariff, we estimate 2023 earnings would increase by THB60m and vice versa, all else being equal.

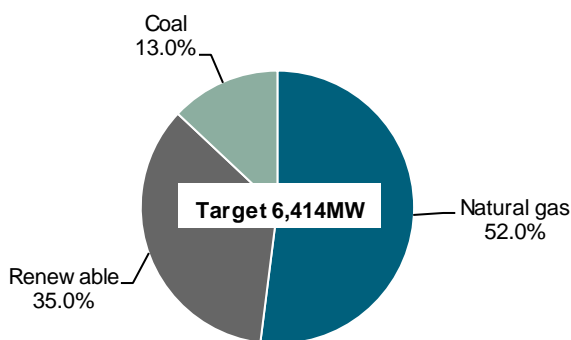
Source: FSSIA estimates

A flagship company for PTT's power and smart energy business

GPSC is a subsidiary of the largest energy company in Thailand, PTT Public Company limited (PTT), which holds a 43.7% share of the company. The mission is to be the flagship company for PTT's power and smart energy, and its aspiration is to be among the top three power companies in Southeast Asia, with more than half of its capacity coming from green energy.

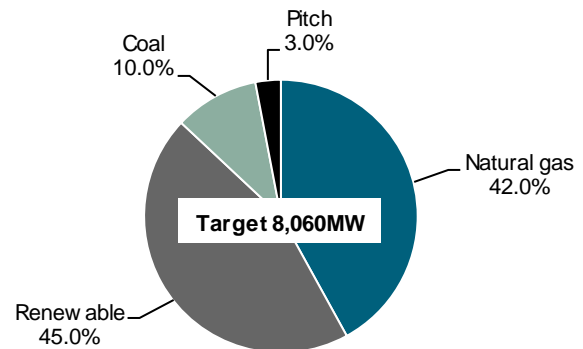
As of 2Q23, the company had a total committed equity capacity of 6,414MW, 52% of which is generated by natural gas, followed by 35% from renewables and 13% from coal. By 2025, GPSC aims to increase its renewable capacity to 45% and raise its total committed equity capacity to 8,060MW.

Exhibit 1: Capacity breakdown by fuel types



Source: GPSC

Exhibit 2: Targeting renewable portfolio of 45% by 2025



Source: GPSC

In terms of revenue breakdown by business (Exhibit 6), the majority of revenue comes from selling electricity (78%) followed by selling steam (18%), which is generated from small power plants (SPPs), and the remainder comes from selling industrial water, chilled water and others as of 2022.

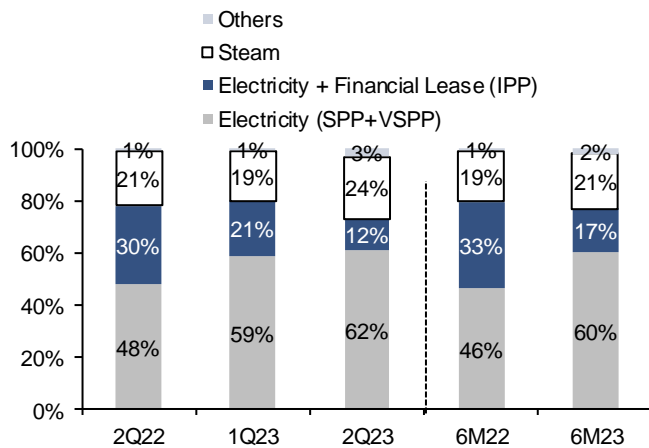
However, if we look at GPSC's revenue and gross profit breakdown by power plant type, it shows that SPPs contribute the highest revenue and profit, followed by independent power plants (IPPs) and very small power plants (VSPPs).

For SPPs, the majority of the capacity is sold to industrial users (IUs), for which the average selling price is discounted to the national grid price or based on the Ft, while the costs vary based on the gas and coal prices. The small remaining capacity is sold to the Electricity Generating Authority of Thailand (EGAT) based on cost pass-through PPAs or a fixed margin. Therefore, the profit from SPPs is sensitive to the Ft and energy prices (i.e. gas and coal), and usually has a high margin during energy cost downtrends and vice versa.

IPPs' revenue and profit structure, on the other hand, is based on cost pass-through PPAs with all of the capacity sold to EGAT. IPPs' selling prices consists of energy payment (EP) and availability payment (AP). EP reflects the actual energy cost used for the dispatch volume, while AP depends on the availability of the plant. Therefore, GPSC's IPP profits depend mostly on the availability of the plant. If there are shutdowns, the revenue and profit will be impacted.

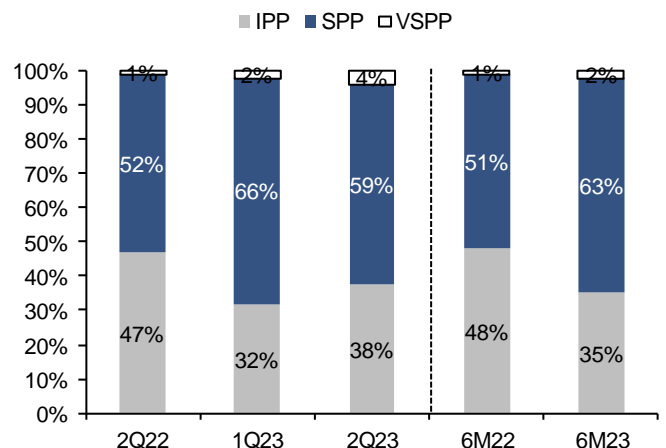
In addition, the revenue or profit from VSPPs (commonly referred to as renewable power plants, which contribute a diminutive part of the total revenue and profit) mostly depend on the feed-in-tariff (FiT) or fixed selling price. Thus, the performance of VSPPs mostly tends to depend on seasonality.

Exhibit 3: Quarterly revenue breakdown by business



Source: GPSC

Exhibit 4: Gross profit breakdown by power plant type



Source: GPSC

Exhibit 5: Key earnings drivers for each of GPSC's power plant types

Power plant type	Key factors affecting earnings
IPPs	- Availability rate - Dispatch rate - Unplanned shutdown
SPPs	- Volatility of gas and coal price - Change in Ft - Unplanned shutdown
VSPPs	- Seasonality - Adder expiration

Source: FSSIA estimates

Exhibit 6: Revenue breakdown by business

Product/Service	Operated by	For the period ending December 31					
		2020		2021		2022	
		Revenue (THB m)	(%)	Revenue (THB m)	(%)	Revenue (THB m)	(%)
Electricity	IPPs	15,092	21%	17,558	22%	41,724	33%
	SPPs	38,100	54%	39,975	51%	56,918	45%
	VSPPs	615	1%	418	1%	244	0%
	Total	53,807	76%	57,951	74%	98,886	78%
Steam	SPPs	13,906	20%	15,032	19%	22,660	18%
	Total	13,906	20%	15,032	19%	22,660	18%
Industrial water/ chilled water	IPPs	20	0%	0	0%	(2)	0%
	SPPs	676	1%	725	1%	765	1%
	VSPPs	193	0%	182	0%	203	0%
	Total	889	1%	907	1%	966	1%
Services	SPPs	0	0%	0	0%	9	0%
	VSPPs	37	0%	89	0%	396	0%
	Total	37	0%	89	0%	405	0%
RDF waste fuel	RDF	6	0%	0	0%	0	0%
	Total	6	0%	0	0%	0	0%
Nitrogen	GPSC	112	0%	157	0%	167	0%
	Total	112	0%	157	0%	167	0%
Total sales and service revenue		68,757	97%	74,136	95%	123,084	97%
Revenue from financial leases							
Financial leases in power plants	IPPs	821	1%	737	1%	602	0%
Total revenue from financial leases		821	1%	737	1%	602	0%
Other revenue							
Dividend	GPSC	396	1%	256	0%	192	0%
Other revenue	GPSC	1,009	1%	3,019	4%	2,539	2%
Total other revenue		1,405	2%	3,275	4%	2,731	2%
Total revenue		70,983	100%	78,148	100%	126,417	100%

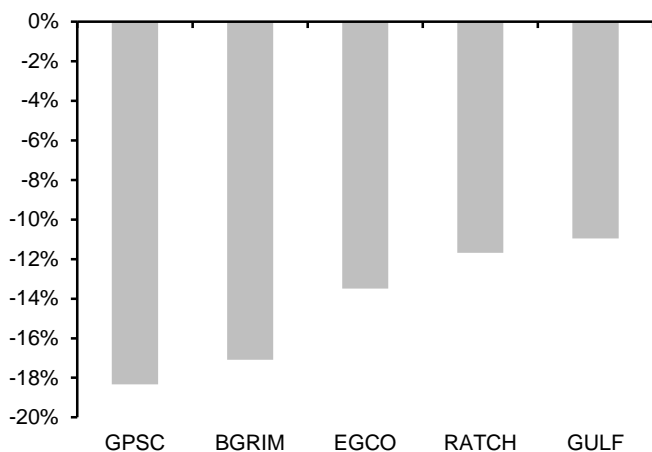
Source: GPSC

A laggard player in utilities sector with high potential earnings growth

6M share price performance relatively weak

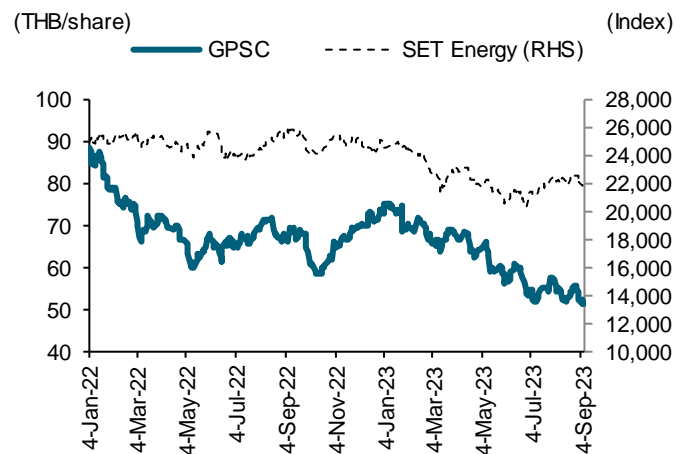
We think GPSC's share price is one of the laggards in the utilities sector despite its relatively high earnings growth potential in 2H23. The share price performance in the past 6 months dropped by 23.8% compared to the sector YTD return (-1.1%) and peers' YTD return (GULF -7.0% and BGRIM -14.3%). We believe part of the share price weakness is from the company's specific factors that caused a miss in 1H23 earnings, which were 1.) the planned maintenance shutdown (25 days) of Glow Energy Phase 5 (SPP); 2.) no dispatch from IPPs due to high energy costs; and 3.) a loss from GHECO-One's periodic coal inventory counting. Furthermore, there was an announcement on a dispute between the coal supplier for GHECO-One claiming that GPSC breached the Coal Supply and Transportation Agreement (CSTA) and caused the supplier to suffer damages of USD0.31b or ~THB10.5b. The company notified the market about the news on 28 June 2023. However, we think the legal process will take a long while, and we also believe that GPSC will be able to defend against the claim or that EGAT could somewhat help absorb the costs. Therefore, we believe this would not have much effect on the share price.

Exhibit 7: Share price laggard since the election



Sources: Bloomberg, FSSIA's estimates

Exhibit 8: Share price performance vs SET Energy index



Source: Bloomberg

Exhibit 9: Share price performance relative to peers

Return	1D	1W	1M	3M	6M	12M
	(%)	(%)	(%)	(%)	(%)	(%)
SET	(0.4)	(0.5)	0.4	(1.4)	(1.5)	(6.9)
SETENERG	(1.0)	(0.3)	(2.8)	1.1	(1.1)	(15.6)
GPSC	(2.9)	(3.4)	(5.2)	(18.4)	(23.8)	(28.2)
GULF	-	1.1	(3.6)	-	(7.0)	(17.3)
BGRIM	0.8	1.5	(10.2)	(12.6)	(14.3)	(12.6)
RATCH	(1.5)	(2.2)	(5.6)	(10.1)	(13.0)	(22.1)
EGCO	(0.8)	(1.9)	(4.0)	(8.7)	(14.1)	(27.1)
BCPG	-	-	5.8	4.7	10.5	(5.7)

As of 11 Sep 2023

Sources: Bloomberg, FSSIA's estimates

One of the highest earnings recoveries expected in 2H23 (+107% h-h)

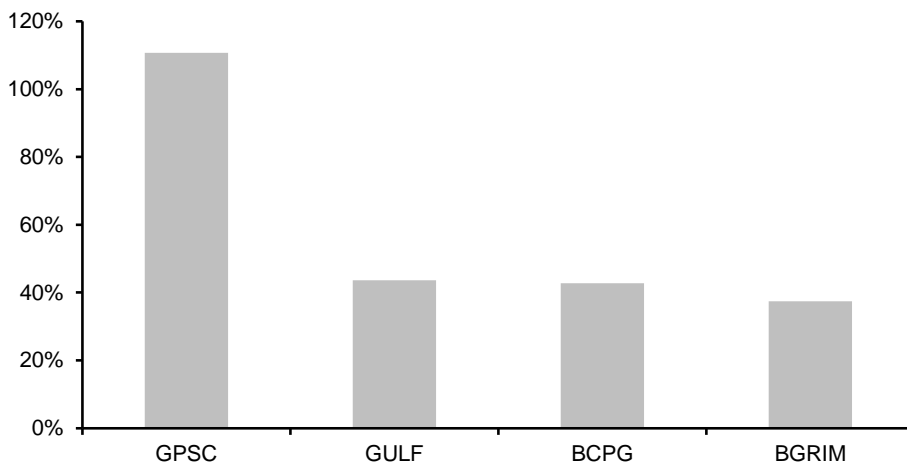
We estimate 107% h-h EPS growth in 2H23 due to its low base in 1H23. Given the declining energy prices (i.e. gas and coal) offsetting the moderate decrease in the Ft, we expect the SPP margin to improve and be the key earnings driver in 2H23, along with a higher share of profit from the high season for XPCL (hydro in Laos) and CFXD (wind in Taiwan). In addition, the reopening of Glow Energy phase 5 (SPP), a higher availability rate from GHECO-One after the maintenance, and a one-time gain from the insurance claim for Glow Energy Phase 5 should be additional supportive earnings factors in 2H23. 1H23 earnings accounted for only 32% of our 2023E net profit. Hence, we are convinced that GPSC will experience one of the highest earnings recoveries in the sector in 2H23.

Exhibit 10: GPSC's quarterly results

	2Q22	1Q23	2Q23		2023E	% of 1H23	
	(THB m)	(THB m)	(THB m)	(q-q%)	(y-y%)	(%)	
Revenue	27,719	27,905	23,035	(17.5)	(16.9)	92,257	55
Operating costs	(24,524)	(23,337)	(19,539)	(16.3)	(20.3)	(74,803)	
EBITDA	3,195	4,568	3,496	(23.5)	9.4	16,541	49
EBITDA margin (%)	12	16	15	nm	nm	18	
Deprn & amort.	(2,157)	(2,206)	(2,357)	6.8	9.3	(8,932)	
EBIT	1,038	2,362	1,139	(51.8)	9.7	7,609	
Interest expense	(1,046)	(1,242)	(1,342)	8.0	28.3	(4,475)	
Interest & invt inc	0	0	0	nm	nm	0	
Other income	625	227	294	29.8	(52.9)	0	
Associates' contrib	432	113	175	54.2	(59.5)	2,297	
Exceptionals	(188)	(36)	18	(149.8)	(109.5)	0	
Pretax profit	861	1,424	284	(80.1)	(67.0)	5,431	31
Tax	(53)	(105)	233	(321.4)	(539.5)	(417)	
Tax rate (%)	6	7	(82)	nm	nm	8	
Minority interests	(124)	(201)	(207)	3.4	67.1	(580)	
Net profit	684	1,118	309	(72.3)	(54.8)	4,434	32

Sources: GPSC, FSSIA estimates

Exhibit 11: 2H23E EPS growth h-h



Sources: Company data, FSSIA estimates

Expect no Ft impact in 2H23 from the new government's urgent policy

Given the market concern over the new government taking action on reducing the electricity price or Ft, we believe that it would not have an impact on the current Ft or GPSC's 2H23 earnings. However, if the new policy were to be implemented, we anticipate it would impact the Jan 2024-Apr 2024 Ft. The magnitude of the reduction is still under discussion, and we expect more details to be provided during the first cabinet meeting on Wednesday 13 Sep 2023.

The news has indeed negatively affected the sentiment of the stock, but we believe it will be just for the short-term. The pressure on the stock should lessen after more details are disclosed in the first cabinet meeting.

In addition, we think that with the lower global energy cost and expected higher production level of gas from the Gulf of Thailand from PTTEP's ramping up of the production from G1/61, this should already help reduce the Ft without government interventions. Thus, we believe it could put less pressure on the magnitude that the government needs to intervene to reduce the Ft. Consequently, GPSC would be able to keep the margin at a high level despite a lower Ft.

For the aforementioned reasons, we believe earnings in 2H23 will be less likely to deviate from our forecast.

Solid earnings growth expected in 2024-25

Potential increase from higher SPP margin and new capacity

We forecast attractive EPS growth of 31% and 33% in 2024-25. This would be mainly driven by 1.) energy price (i.e. gas and coal) normalisation, which would help increase the SPP margin; 2.) a higher profit contribution from Avaada Energy Private Limited (AEPL) from losses due to high interest costs in 2021-22; 3.) the full SCOD of Changfang Xidao (CFXD), wind in Taiwan, in 1Q24; and 4.) better power plant efficiency from Glow SPP phase 5 and GHECO-One IPP, providing higher SPP sales volumes and increasing availability payments.

Furthermore, there is new capacity under development which is currently progressing on schedule. This material new capacity is from the Glow SPP2 replacement plant (98MW, SCOD: Mar 2024/Apr 2024, progress 62.65%) and the Energy Recovery Unit (ERU, 250MW, SCOD: 2025, progress 90.67%).

Exhibit 12: Key assumptions

Key assumptions		2021	2022	2023E	2024E	2025E
IPP gas price	(THB/mmbtu)	257	465	460	361	351
SPP gas price	(THB/mmbtu)	266	478	430	370	360
Coal price	(USD/tonne)	80	192	210	150	100
Ft	(THB/kWh)	(0.15)	0.40	1.04	0.60	0.40
IPP						
Availability rate						
Sriracha Power Plant	(%)	91	75	95	95	95
GIPP	(%)	92	97	97	97	97
GHECO-One	(%)	75	83	83	83	83
SPP						
SPP sales volume	(GWh)	13,313	13,148	13,276	13,557	10,955
Steam sales volume	(KT)	15,090	14,509	14,792	14,833	13,377

Source: GPSC

Expect significant contribution from investment in AEPL and CFXD going forward

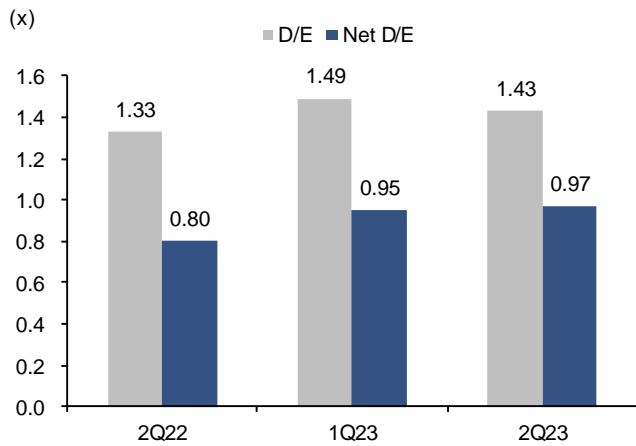
For AEPL (solar in India, GPSC holds 43%), we estimate the contribution from the company will be THB0.4b in 2023, and should continue to grow to THB0.6b-THB0.9b in 2024-25. This follows the company's restructuring of its debt, which is now helping to reduce the cost of financing. AEPL is operating 3,987MW (29 projects) as of 2Q23. The company currently has 709MW (6 projects) under construction, which are expected to COD in 2023-24, and another 2,204MW (8 projects) under development, which it plans to COD in 2024-25.

For CFXD (wind in Taiwan, GPSC holds 25%), the project has currently progressed to 72% completion as of 2Q23, and the company targets full COD in 1Q24. Total installed capacity will be 595MW, or equal to an equity capacity of 149MW once the project is completed. We expect the contribution to grow from breakeven this year to THB0.5b in 2024 and THB0.8b in 2025.

Strong balance sheet – more room to invest in renewables and new businesses

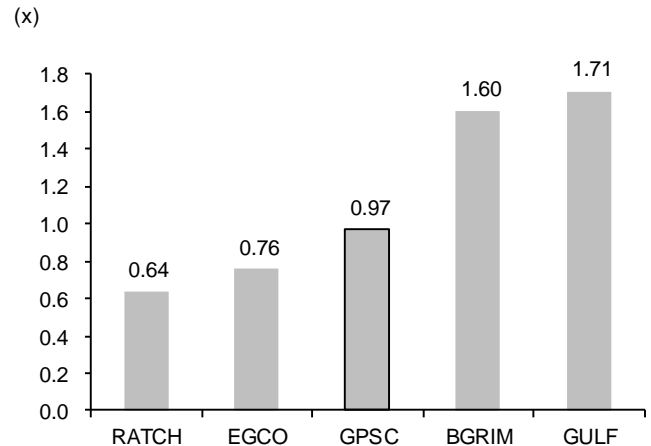
As of 2Q23, GPSC’s net debt to equity was at 0.97x, which is still well below its covenant of 2.5x. Compared to peers, the company’s leverage is at a relatively low level. This implies that the company’s balance sheet still has room to invest in its strategic growth via renewable energy and new businesses (i.e. batteries, decarbonisation technology, renewable energy value chain and e-waste management).

Exhibit 13: Healthy balance sheet – well below its covenant of 2.5x



Source: GPSC

Exhibit 14: Balance sheet comparison



Sources: Company data, FSSIA estimates; data as of 2Q23

Battery business should be a pillar of the new businesses to unlock the company’s long-term value

GPSC is entering into the battery business as part of PTT’s EV ecosystem. Currently, the company has set up two companies (Nuovo+ and NV Gotion) to invest in different battery technologies.

The first company is Nuovo+. It has invested in AXXIVA, an EV battery manufacturing company in China. The company expects it to be a flagship company to study the cell-to-pack technology, which is primarily suitable for EV cars. They are now constructing a 1GWh battery manufacturing plant, which is expected to SOP in 2Q24.

Unlike the other company, NV Gotion is focused primarily on battery pack module technology. This technology is more suitable for commercial EV or for ESS, which is used in the power sector (solar or wind farm) due to its larger size. GPSC expects NV Gotion’s business to include importing, assembling, and distributing battery modules and battery packs. The company is currently building a module and pack assembly plant, which is expected to SOP in 4Q23. The capacity in the 1st phase will be 1GWh. Then, it plans to expand up to 4GWh.

We think this battery business will further enhance GPSC’s future value. The company could also benefit from being one of the first movers investing in this business in Thailand. However, we expect no material earnings contributions in the next few years. Therefore, we have not included these businesses into our earnings forecast.

Exhibit 15: Nuovo+ - AXXIVA’s EV battery manufacturing plant



Source: GPSC

Exhibit 16: NV Gotion – a module assembly battery plant



Source: GPSC

Valuation

We re-initiate coverage of GPSC as a BUY with a TP of THB60.30/share. Our DCF-based TP is based on a WACC of 5.9% derived from a cost of equity of 12% and cost of debt of 4%. This provides a current 18% upside to our target price.

We think GPSC is a good choice as one of the laggard plays in utilities stocks. We anticipate the negative pressure on its share price is likely to lessen after the government's first cabinet meeting in which the market should receive more information on how the government will implement the policy. Thus, we believe it is a good time to accumulate the stock. On the back of this reason, expected strong earnings growth should help support the downside of the share price.

Exhibit 17: Target price calculations

DCF valuation	(THB)	(THB/share)
Operating assets	211,949	75.2
ERU	3,186	1.1
Investment in associates and JVs	44,505	15.8
Net debt	(89,564)	(31.8)
Total	170,076	60.3

Source: FSSIA estimates

Exhibit 18: WACC calculations

Cost of equity assumptions	(%)	Cost of debt assumptions	(%)
Risk free rate	2.7	Pretax cost of debt	4.0
Market risk premium	8.0	Marginal tax rate	20
Stock beta	1.18		
Cost of equity, Ke	12	Net cost of debt, Kd	3
Weight applied	30	Weight applied	70
WACC (%)	5.9		

Source: FSSIA estimates

Exhibit 19: Key valuations as of 8 Sep 2023

Company	BBG	Rec	Share	Target	Up	Market	3Y EPS	PE	ROE	PBV	EV/EBITDA				
			Price	price	side	Cap	CAGR	23E	24E	23E	24E	23E	24E		
			(LCY)	(LCY)	(%)	(USD m)	(%)	(x)	(x)	(%)	(%)	(x)	(x)		
Gulf Energy Development	GULF TB	BUY	46.75	52.30	12	15,437	25.3	33.4	27.6	14.2	15.8	4.6	4.2	27.4	24.4
Global Power Synergy	GPSC TB	BUY	51.25	60.30	18	4,067	40.5	32.6	24.9	4.2	5.4	1.3	1.3	15.4	13.4
B Grimm Power	BGRIM TB	BUY	33.25	45.00	35	2,403	(237.7)	33.9	28.6	7.6	8.0	2.3	2.3	12.2	11.1
BCPG	BCPG TB	BUY	10.20	15.10	48	819	1.7	17.1	14.9	5.8	6.5	1.0	0.9	12.7	11.6
Energy Absolute	EA TB	n/a	60.75	n/a	n/a	6,466	13.1	27.2	26.5	18.7	16.6	4.9	4.3	20.3	18.8
Ratch Group	RATCH TB	n/a	34.00	n/a	n/a	2,054	12.3	9.9	8.6	7.1	7.8	0.7	0.7	14.3	13.8
Electricity Generating	EGCO TB	n/a	131.50	n/a	n/a	1,937	22.7	7.5	6.8	7.6	7.6	0.5	0.5	15.2	15.7
Banpu Power	BPP TB	n/a	14.60	n/a	n/a	1,237	(8.2)	11.7	11.3	7.7	7.4	0.9	0.8	24.5	12.2
Gunkul Engineering	GUNKUL TB	n/a	3.58	n/a	n/a	891	23.3	17.1	15.9	12.8	13.2	2.1	2.0	10.7	12.1
CK Power	CKP TB	n/a	3.60	n/a	n/a	807	(6.6)	22.0	17.5	5.2	6.0	1.0	0.9	16.5	15.8
Absolute Clean Energy	ACE TB	n/a	1.72	n/a	n/a	494	23.7	14.5	10.2	9.0	11.0	1.2	1.1	10.0	5.9
Thailand avg						36,610	39.9	20.6	17.5	9.1	9.6	1.9	1.7	16.3	14.1

Sources: Bloomberg; FSSIA estimates

Exhibit 20: Management team

Name	Position	Age	Education	Highlights of work experiences	
Mr. Worawat Pitayasiri	President and CEO	56	MBA, Thammasart University	Sep 2018 - Nov 2020	Senior EVP, Innovation and Digital, PTT
			Bachelor of Engineering (Chemical Engineering), Chulalongkorn University	Oct 2016 - Sep 2018	EVP, Downstream Business Group Planning, PTT
Mr. Sirimet Leepagorn	Chief Operating Officer	53	MBA, Thammasat University	Oct 2020 - Dec 2020	Acting EVP, Finance and Accounting, PTTGC
			Bachelor of Engineering (Electrical Engineering), Chulalongkorn University	Jun 2019 – Sep 2020	Senior VP, Corporate Finance and Strategy, PTTGC
				Oct 2011 - Jun 2019	VP - Corporate Finance & IR, PTTGC
				Jan 2011 - Sep 2019	Director, PTTGC Innovation America Corporation
Mr. Thitipong Jurapornsiridee	Chief Financial Officer	56	MBA, Burapha University	Dec 2018 – Mar 2023	Chairman, IRPC Clean Power Co., Ltd.
			Bachelor of Science (Chemistry), Chiang Mai University	Sep 2021 - Apr 2022	Director, Global Renewable Synergy Taiwan Co., Ltd.
				Jun 2021 - Apr 2022	Director, Global Renewable Synergy Co., Ltd.
Mrs. Rosaya Teinwan	EVP - Business Development	53	Doctor of Business Administration, King Mongkut's University of Technology North Bangkok	1 Apr. 2020 - Present	EVP, Business Development, GPSC
			MBA, Rangsit University	Jun 2021 - Present	Chairman, Sheng Yang Energy Co., Ltd.
			Bachelor of Engineering, Kasetsart University	Jan 2020 - Present	Director, IRPC Clean Power Co., Ltd.
				Jan 2020 - Present	Director, Global Renewable Power Co., Ltd.
Mrs. Sriprapha Sumruatruamphol	EVP - Commercial and Supply Chain Management	59	MBA, Syracuse University, New York, USA	2015 - 31 Mar 2020	Chief Commercial Officer and EVP-HR GLOW, and Glow Group
			Bachelor Degree in Science (Chemical Engineering), Michigan Technological University, Michigan, USA	Feb 2012 - Sep 2013	Chairman of Association of Private Power Producers
				Feb 2012 - Sep 2013	Chairman of Power Generation Club – The Federation of Thai Industries
				2001 - 2015	Chief Commercial Officer and EVP GLOW, and Glow Group
Mr. Adrianus Josephus Van Den Broek	EVP - Operations and Maintenance	51	Master of Science in Management, General Management PDP2, University Nyenrode, the Netherlands	2020 - Oct 2021	EVP - Operation Center of Excellence
			Bachelor of Electronics Engineering-Technical Computer Science, College Rijswijk	2016 - 2020	Chief Operating Officer and EVP, GLOW, Glow Group, & Houay Ho Power Co., Ltd.
Mr. Sutthi Chuesook	EVP - Operational Excellence	56	MBA, Ramkhamhaeng University	2023	EVP – Operational Excellence GPSC
			Bachelor's degree Department of Electrical Engineering, King Mongkut's University of Technology North Bangkok	2020 - 2022	Senior VP Plant O&M, Rayong Area GPSC
				2017 - 2020	SVP – Rayong Facilities Management Glow Co., Ltd.
Mr. Kulapat Permbhusri	EVP - Corporate Strategy and Subsidiary Management	59	Master of Science in Electrical Engineering, Tufts University, U.S.A	May 2022 - Present	EVP Corporate Strategy and Subsidiary Management / GPSC
			Bachelor of Science in Electrical Engineering, Boston University, U.S.A	Nov 2021 - May 2022	Acting EVP Corporate Strategy and Subsidiary Management / GPSC
			Bachelor of Science in Physics, Boston College, U.S.A	2017 - 2021	Senior VP Subsidiary and Investment Management GPSC
Ms. Attayar Sukotanang	Senior VP, Corporate Internal Audit	49	Master of Science in Information Systems, The George Washington University, U.S.A.	2020 - Present	Senior VP, Corporate Internal Audit, GPSC
			Bachelor of Arts in Business Administration, Eastern Washington University, U.S.A.	2017 - 2020	VP, Corporate Internal Audit, GPSC
				2013 - 2017	Manager, Upstream and Gas Business Group Alignment Department, PTT
Ms. Dutdao Suksamran	Senior VP Office of Legal	50	Master of Law, American University, Washington College of Law, U.S.A.	Aug 2019 - Mar 2020	VP Office of Legal
			Bachelor of Law, Thammasat University	Aug 2017 - Jul 2017	VP, Corporate Affairs and Legal
				Mar 2011 - Jan 2017	Director of Legal, AIA Thailand Co., Ltd.
Mr. Narongchai Visutrachai	Senior VP Government Relations and Public Affairs	56	Master Degree in Science (Economics) , University of North Texas, USA	2016 - 2020	Senior VP - Government & Public Affairs GLOW / Glow Group
			MBA , Kasetsart University		
Mr. Noranat Simarat	Acting Senior VP Company Secretary and CG	45	Master of Laws, Indiana University, U.S.A.	2023 - Present	Acting Senior VP Company Secretary and Corporate Governance, GPSC
			Bachelor of Laws, Thammasat University	2022 - 2023	VP, GPSC
				2020 - 2022	Business Law and Litigation Division Manager, GPSC
				2018 - 2020	Division Manager Office of Corporate Legal, GPSC
Mrs. Prinda Ma-imjai	Senior VP Organization Effectiveness	47	MBA (Management of Technology), Asian Institute of Technology	Apr 2021 - Present	Senior VP, Organization Effectiveness, GPSC
			Bachelor's Degree in Engineering (Computer Engineering), Kasetsart University	Oct 2020 - Mar 2021	VP, Business Group Human Resources Management, PTT
				Oct 2019 – Sep 2020	VP, HR Strategy & Policy, PTT
				Oct 2016 - Sep 2019	VP, Strategy & Enterprise Services, PTT Digital Solutions Co., Ltd.

Source: GPSC

Financial Statements

Global Power Synergy

Profit and Loss (THB m) Year Ending Dec	2021	2022	2023E	2024E	2025E
Revenue	74,874	123,685	92,257	87,359	83,614
Cost of goods sold	(63,736)	(120,324)	(83,735)	(78,032)	(71,225)
Gross profit	11,138	3,361	8,522	9,327	12,389
Other operating income	3,236	2,731	1,301	1,497	1,796
Operating costs	(1,374)	(422)	(2,214)	(2,258)	(2,304)
Operating EBITDA	22,231	14,783	16,541	18,397	21,849
Depreciation	(9,232)	(9,113)	(8,932)	(9,832)	(9,968)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	13,000	5,670	7,609	8,565	11,882
Net financing costs	(3,915)	(4,240)	(4,475)	(4,575)	(5,719)
Associates	1,536	1,539	2,297	3,105	3,355
Recurring non-operating income	1,536	1,539	2,297	3,105	3,355
Non-recurring items	(1,588)	(1,888)	0	0	0
Profit before tax	9,032	1,081	5,431	7,095	9,517
Tax	(1,192)	376	(417)	(533)	(794)
Profit after tax	7,840	1,457	5,014	6,563	8,724
Minority interests	(522)	(566)	(580)	(759)	(1,009)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	7,319	891	4,434	5,803	7,714
Non-recurring items & goodwill (net)	1,588	1,888	0	0	0
Recurring net profit	8,907	2,779	4,434	5,803	7,714
Per share (THB)					
Recurring EPS *	3.16	0.99	1.57	2.06	2.74
Reported EPS	2.60	0.32	1.57	2.06	2.74
DPS	1.50	0.50	1.30	1.50	1.50
Diluted shares (used to calculate per share data)	2,820	2,820	2,820	2,820	2,820
Growth					
Revenue (%)	7.6	65.2	(25.4)	(5.3)	(4.3)
Operating EBITDA (%)	(2.2)	(33.5)	11.9	11.2	18.8
Operating EBIT (%)	(7.4)	(56.4)	34.2	12.6	38.7
Recurring EPS (%)	(0.6)	(68.8)	59.5	30.9	32.9
Reported EPS (%)	(2.5)	(87.8)	397.4	30.9	32.9
Operating performance					
Gross margin inc. depreciation (%)	14.9	2.7	9.2	10.7	14.8
Gross margin exc. depreciation (%)	27.2	10.1	18.9	21.9	26.7
Operating EBITDA margin (%)	29.7	12.0	17.9	21.1	26.1
Operating EBIT margin (%)	17.4	4.6	8.2	9.8	14.2
Net margin (%)	11.9	2.2	4.8	6.6	9.2
Effective tax rate (%)	15.9	82.2	13.3	13.4	12.9
Dividend payout on recurring profit (%)	47.5	50.7	82.7	72.9	54.8
Interest cover (X)	3.7	1.7	2.2	2.6	2.7
Inventory days	44.2	30.9	48.6	44.7	51.4
Debtor days	54.9	49.6	89.8	96.6	83.1
Creditor days	34.7	28.4	44.4	48.7	64.9
Operating ROIC (%)	(2.3)	(1.0)	(7.9)	(8.7)	(22.9)
ROIC (%)	(1.2)	(0.6)	(4.6)	(5.4)	(13.3)
ROE (%)	8.4	2.6	4.2	5.4	7.0
ROA (%)	3.3	0.9	(0.1)	0.4	(1.3)
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
Independent power producer	17,558	41,724	14,164	20,507	17,982
Small power producer	55,889	80,519	76,928	65,719	59,991
Very small power producer	689	843	563	561	5,098
Others	738	599	602	572	543

Sources: Global Power Synergy; FSSIA estimates

Financial Statements

Global Power Synergy

Cash Flow (THB m) Year Ending Dec	2021	2022	2023E	2024E	2025E
Recurring net profit	8,907	2,779	4,434	5,803	7,714
Depreciation	9,232	9,113	8,932	9,832	9,968
Associates & minorities	1,536	1,539	2,297	3,105	3,355
Other non-cash items	1,318	1,318	1,319	1,319	1,320
Change in working capital	(4,686)	(68)	(5,541)	8,737	4,714
Cash flow from operations	16,307	14,681	11,442	28,797	27,072
Capex - maintenance	(6,208)	(6,237)	(8,932)	(9,832)	(9,968)
Capex - new investment	(11,042)	(12,414)	(23,931)	(21,831)	(21,966)
Net acquisitions & disposals	(28,951)	(29,145)	(17,864)	(19,664)	(19,935)
Other investments (net)	0	0	0	0	0
Cash flow from investing	(46,201)	(47,797)	(50,727)	(51,327)	(51,869)
Dividends paid	0	0	(1,692)	(4,230)	(4,230)
Equity finance	0	0	0	0	0
Debt finance	(2,683)	7,782	5,000	0	0
Other financing cash flows	26,081	25,777	37,690	35,660	36,202
Cash flow from financing	23,398	33,559	40,998	31,430	31,972
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	(6,496)	444	1,713	8,901	7,175
Free cash flow to firm (FCFF)	(26,034.15)	(28,816.56)	(34,809.68)	(17,954.56)	(19,078.29)
Free cash flow to equity (FCFE)	(6,496.03)	443.57	3,405.25	13,130.37	11,404.32

Per share (THB)

FCFF per share	(9.23)	(10.22)	(12.35)	(6.37)	(6.77)
FCFE per share	(2.30)	0.16	1.21	4.66	4.04
Recurring cash flow per share	7.45	5.23	6.02	7.11	7.93

Balance Sheet (THB m) Year Ending Dec	2021	2022	2023E	2024E	2025E
Tangible fixed assets (gross)	165,325	168,236	183,236	195,236	207,236
Less: Accumulated depreciation	(69,744)	(75,589)	(84,521)	(94,353)	(104,321)
Tangible fixed assets (net)	95,581	92,647	98,715	100,883	102,915
Intangible fixed assets (net)	5,116	3,817	3,817	3,818	3,819
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	27,700	44,372	44,372	44,372	44,372
Cash & equivalents	13,793	14,236	15,950	24,851	32,025
A/C receivable	13,441	20,178	25,202	21,033	17,043
Inventories	6,938	11,915	8,014	8,682	8,583
Other current assets	11,318	6,494	4,844	4,586	4,390
Current assets	45,490	52,822	54,009	59,152	62,041
Other assets	96,492	95,152	90,152	90,152	90,152
Total assets	270,379	288,810	291,065	298,377	303,299
Common equity	108,334	104,730	107,472	109,046	112,530
Minorities etc.	9,413	10,370	10,950	11,710	12,719
Total shareholders' equity	117,748	115,100	118,422	120,755	125,249
Long term debt	92,511	97,957	102,957	102,957	102,957
Other long-term liabilities	37,084	43,560	43,560	43,560	43,560
Long-term liabilities	129,595	141,516	146,516	146,516	146,516
A/C payable	6,407	10,887	7,323	10,887	10,887
Short term debt	9,121	11,457	11,457	11,457	11,457
Other current liabilities	7,508	9,849	7,346	8,760	9,189
Current liabilities	23,036	32,193	26,127	31,105	31,534
Total liabilities and shareholders' equity	270,379	288,810	291,065	298,377	303,299
Net working capital	17,782	17,850	23,391	14,653	9,939
Invested capital	242,671	253,838	260,447	253,878	251,198

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

Per share (THB)

Book value per share	38.42	37.14	38.11	38.67	39.91
Tangible book value per share	36.61	35.79	36.76	37.32	38.55

Financial strength

Net debt/equity (%)	74.6	82.7	83.1	74.2	65.8
Net debt/total assets (%)	32.5	33.0	33.8	30.0	27.2
Current ratio (x)	2.0	1.6	2.1	1.9	2.0
CF interest cover (x)	2.2	4.0	7.1	8.6	6.8

Valuation	2021	2022	2023E	2024E	2025E
Recurring P/E (x) *	16.2	52.0	32.6	24.9	18.7
Recurring P/E @ target price (x) *	19.1	61.2	38.3	29.3	22.0
Reported P/E (x)	19.7	162.1	32.6	24.9	18.7
Dividend yield (%)	2.9	1.0	2.5	2.9	2.9
Price/book (x)	1.3	1.4	1.3	1.3	1.3
Price/tangible book (x)	1.4	1.4	1.4	1.4	1.3
EV/EBITDA (x) **	10.9	16.9	15.4	13.4	11.0
EV/EBITDA @ target price (x) **	12.0	18.6	16.9	14.7	12.1
EV/invested capital (x)	1.0	1.0	1.0	1.0	1.0

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

Sources: Global Power Synergy; FSSIA estimates

Public disclosures related to sustainable development evaluation of Thai listed companies

Rating regarding the sustainable development of Thai listed companies, both on the SET and MAI, are publicly available on the website of the Securities and Exchange Commission of Thailand (SEC). Currently, ratings available are 1) "**CG Score**" by the Thai Institute of Directors Association (Thai IOD); 2) "**AGM Checklist**" by the Thai Investors Association (TIA), a "**CAC certified member**" of the Thai Private Sector Collective Action Against Corruption (CAC); and 3) "**Sustainability Investment List (THSI)**" by the Stock Exchange of Thailand. The ratings are updated on an annual basis. FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such ratings.

CG Score by the Thai Institute of Directors Association (Thai IOD)¹

The **CG Score** indicates corporate governance (CG) strength in the sustainable development of Thai listed companies. Annually, the Thai IOD, with support from the Stock Exchange of Thailand (SET), surveys and assesses the CG practices of companies and publishes the results on the [Thai IOD website](#) in a bid to promote and enhance the CG of Thai listed companies in order to promote compliance with international standards for better investment decisions. The results are from the perspective of a third party, not an evaluation of operations, as of the date appearing in the report, and may be changed after that date.

The **five underlying categories and weighting** used for the CG scoring in 2022 include the rights of shareholders and equitable treatment of shareholders (weight 25% combined), the role of stakeholders (25%), disclosure and transparency (15%), and board responsibilities (35%).

The CGR report rates CG in six categories: 5 for Excellent (score range 90-100), 4 for Very Good (score range 80-89), 3 for Good (Score range 70-79), 2 for Fair (score range 60-69), 1 for Pass (score range 60-69), and not rated (score below 50).

Corporate Governance Report Disclaimer

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of companies listed on the Stock Exchange of Thailand and the Market of Alternative Investment disclosed to the public and able to be accessed by a general public investor at [Thai IOD website](#). The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the data appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. **FSSIA** does not confirm nor certify the accuracy of such survey result.

AGM Checklist by the Thai Investors Association (TIA)²

The "**AGM Checklist**" quantifies the extent to which shareholders' rights and equitable treatment are incorporated into business operations and the extent to which information is sufficiently disclosed and the level of its transparency. All the considered factors form important elements of two out of five the CG components. Annually, the TIA, with support from the SEC, leads the project to evaluate the quality of Annual General Meetings of Shareholders (AGMs) and to rate quality of the meetings.

The **Checklist** contains the minimum requirements under law that companies must comply with, or best practices according to international CG guidance. Representatives of the TIA will attend the meetings and perform the evaluation. The assessment criteria cover AGM procedures before the meeting (45%), at the meeting date (45%), and after the meeting (10%). The first assesses 1) advance circulation of sufficient information for voting; and 2) facilitating of how voting rights can be exercised. The second assesses 1) the ease of attending meetings; 2) transparency and verifiability; and 3) openness for Q&A. The third involves the meeting minutes that should contain discussion issues, resolutions and voting results.

The results are classified into four categories: 5 for Excellent (score 100), 4 for Very Good (score 90-99), 3 for Fair (score 80-89), and not rated (score below 79).

CAC certified member by the Thai Private Sector Collective Action Against Corruption (CAC)³

A **CAC certified member** is a listed company whose Checklist satisfies the CAC Certification's criteria and is approved by the CAC Council. The core elements of the Checklist include corruption risk assessment, establishment of key controls, and the monitoring and developing of policies. Note that the CAC does not certify the behaviour of the employees nor whether the companies have engaged in bribery, and Certification is good for three years.

Companies deciding to become a CAC certified member **start with** by submitting a Declaration of Intent signed by the Chairman of the Board to kick off the 18-month deadline for companies to submit the CAC Checklist for Certification. The 18-month provision is for risk assessment, in place of policy and control, training of managers and employees, establishment of whistleblowing channels, and communication of policies to all stakeholders.

The checklist document will be reviewed by the CAC Certification Committee for adequate information and evidence. It is worth noting that the committee consists of nine professionals in business law, corporate governance, internal audit, financial audit and experienced representatives from certified members.

A passed Checklist will move on to the **CAC Council** for granting certification approvals. The CAC Council consists of twelve prominent individuals who are highly respected in professionalism and ethical achievements. Among them are former ministers, a former central bank governor, the former head of the Thai Listed Companies Association, Chairman of Anti-Corruption Organizations (Thailand), Chairman of Thai Institute of Directors, and reputable academic scholars.

Sustainability Investment (THSI)⁴ by the Stock Exchange of Thailand (SET)

Thailand Sustainability Investment (**THSI**) quantifies responsibility in **E**nvironmental, and **S**ocial issues, by managing business with transparency in **G**overnance. The THSI serves as another choice for investors who desire to adopt a responsible investment approach, according to the SET.

Annually, the SET will announce the voluntary participation of the company candidates which pass the preemptive criteria, and whose two key crucial conditions are met, i.e. no irregular trading of the board members and executives and a free float of >150 by the number of shareholders, and combined holding must >15% of paid-up capital. Some key disqualifying criteria include a CG score of below 70%; independent directors and free float violation; executives' wrongdoing related to CG, social and environmental impacts, equity in negative territory, and earnings in the red for more than three years in the last five years. To become eligible for THSI, the candidate must pass three indicators in data declaration: **E**conomic (CG, risk management, customer relation management, supply chain management, and innovation); **E**nvironmental (environmental management, eco-efficiency, and climate risk); **S**ocial (human rights, talent attraction, operational health & safety, community development, and stakeholder engagement); and the incorporation of ESG in business operations.

To be approved for THSI inclusion, verified data must be scored at a 50% minimum for each indicator, unless the company is a part of the Dow Jones Sustainability Indices⁵ (DJSI) during the assessment year. The scoring will be fairly weighted against the nature of the relevant industry and materiality.

Note that, from the **THSI list**, the SET further developed a sustainability **SETTHSI Index** in June 2018 from selected THSI companies whose 1) market capitalisation > THB5b (~USD150b); 2) free float >20%; and 3) liquidity >0.5% of paid-up capital for at least 9 out of 12 months. The SETTHSI Index is a market capitalisation-weighted index, cap 5% quarterly weight at maximum, and no cap for number of stocks.

Sources: [SEC](#); [Thai IOD](#); [Thai CAC](#); [SET](#); FSSIA's compilation

Disclaimer:

¹ Thai Institute of Directors Association ([Thai IOD](#)) was established in December 1999 and is a membership organisation that strives to promote professionalism in directorship. The Thai IOD offers directors certification and professional development courses, provides a variety of seminars, forums and networking events, and conducts research on board governance issues and practices. Membership comprises board members from companies ranging from large publicly listed companies to small private firms.

² Thai Investors Association ([TIA](#)) was established in 1983 with a mission to promote investment knowledge and to protect the investment rights of Thai investors. In 2002, the association was appointed by the Securities and Exchange Commission (SEC) to represent individual shareholders. To obtain information for evaluation, the association recruits volunteer investors to join AGMs and score the meetings. Weightings for each meeting are at a 45:45:10 ratio. They have been applied since 2017 and subject to change.

³ Thai Private Sector Collective Action against Corruption ([CAC](#)) was founded in 2010 and is 100% privately funded. It is an initiative by the Thai private sector to take part in tackling corruption problems via collective action. The CAC promotes the implementation of effective anti-corruption policies in order to create a transparent business ecosystem by developing a unique certification program for large/medium/small companies to apply for and to control corruption risk systematically and efficiently. The CAC's operations are sponsored by the US-based Center for Private Enterprise (CIPE) and the UK Prosperity Fund.

⁴ Sustainability Investment List ([THSI](#)), created by the Stock Exchange of Thailand in 2015, comprises the listed companies that conduct sustainable business operations.

⁵ Dow Jones Sustainability Indices – [Wikipedia](#) – Launched in 1999, DJSI evaluates the sustainability performance of companies based on corporate economic, environmental, and social performance.

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Kwanwaree Apichartsatoporn FSS International Investment Advisory Securities Co., Ltd

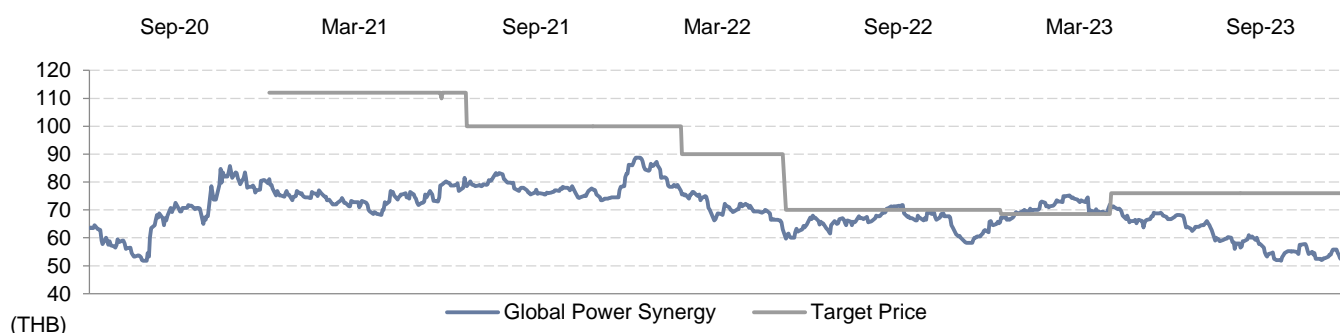
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

This report has been prepared by FSS International Investment Advisory Company Limited (FSSIA). The information herein has been obtained from sources believed to be reliable and accurate; however FSS makes no representation as to the accuracy and completeness of such information. Information and opinions expressed herein are subject to change without notice. FSS has no intention to solicit investors to buy or sell any security in this report. In addition, FSS does not guarantee returns nor price of the securities described in the report nor accept any liability for any loss or damage of any kind arising out of the use of such information or opinions in this report. Investors should study this report carefully in making investment decisions. All rights are reserved.

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History of change in investment rating and/or target price

Global Power Synergy (GPSC TB)



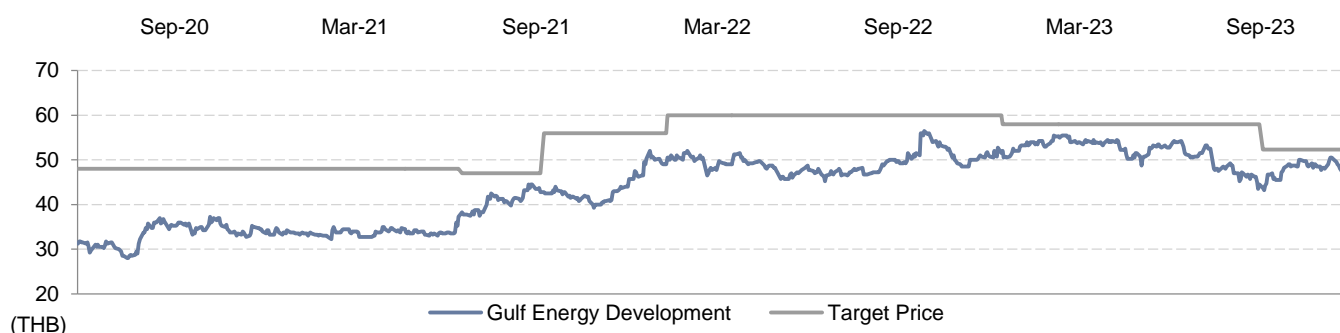
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
15-Feb-2021	BUY	112.00	05-Aug-2021	BUY	100.00	10-Nov-2022	HOLD	68.50
14-Jul-2021	BUY	110.00	07-Feb-2022	BUY	90.00	13-Feb-2023	BUY	76.00
15-Jul-2021	BUY	112.00	06-May-2022	HOLD	70.00			

Kwanwaree Apichartsatoporn started covering this stock from 11-Sep-2023

Price and TP are in local currency

Source: FSSIA estimates

Gulf Energy Development (GULF TB)



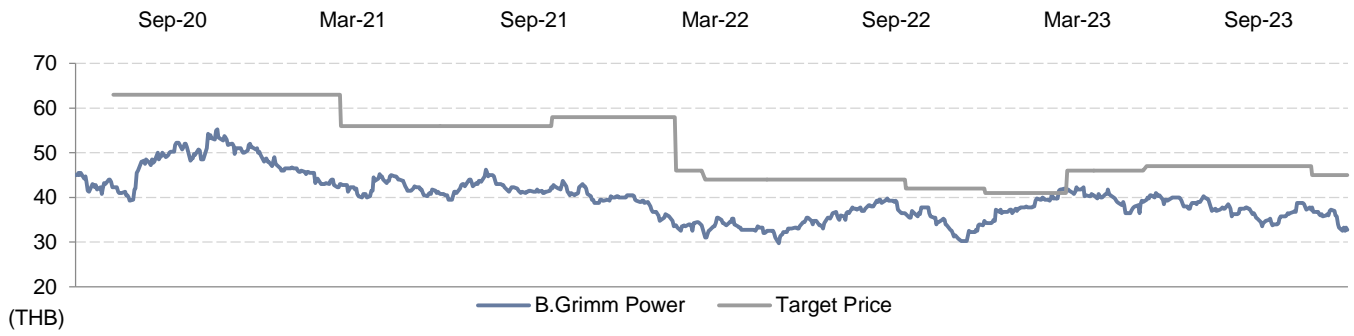
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
11-Sep-2020	BUY	48.00	15-Oct-2021	BUY	56.00	14-Nov-2022	BUY	58.00
06-Aug-2021	BUY	47.00	31-Jan-2022	BUY	60.00	23-Jun-2023	BUY	52.30

Kwanwaree Apichartsatoporn started covering this stock from 23-Jun-2023

Price and TP are in local currency

Source: FSSIA estimates

B.Grimm Power (BGRIM TB)



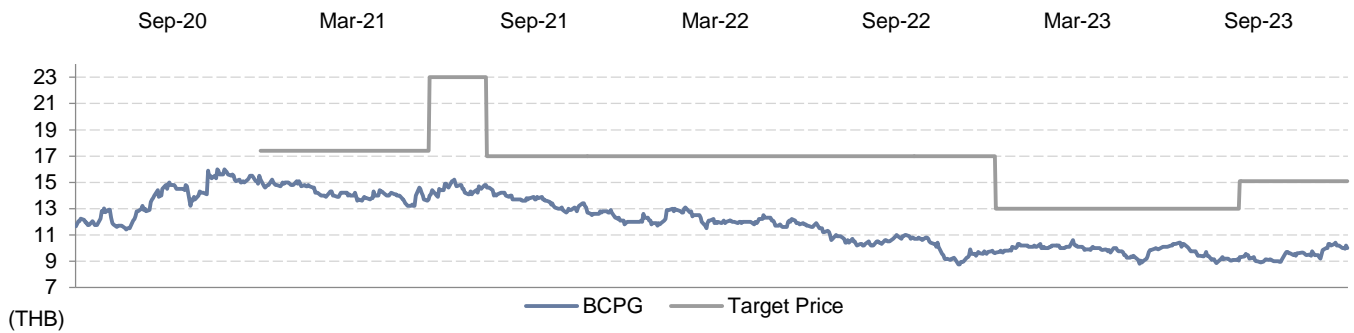
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
15-Oct-2020	BUY	63.00	04-Mar-2022	BUY	44.00	17-Mar-2023	BUY	47.00
28-Apr-2021	BUY	56.00	25-Aug-2022	BUY	42.00	08-Aug-2023	BUY	45.00
26-Oct-2021	BUY	58.00	01-Nov-2022	BUY	41.00			
09-Feb-2022	BUY	46.00	10-Jan-2023	BUY	46.00			

Kwanwaree Apichartsatoporn started covering this stock from 08-Aug-2023

Price and TP are in local currency

Source: FSSIA estimates

BCPG (BCPG TB)



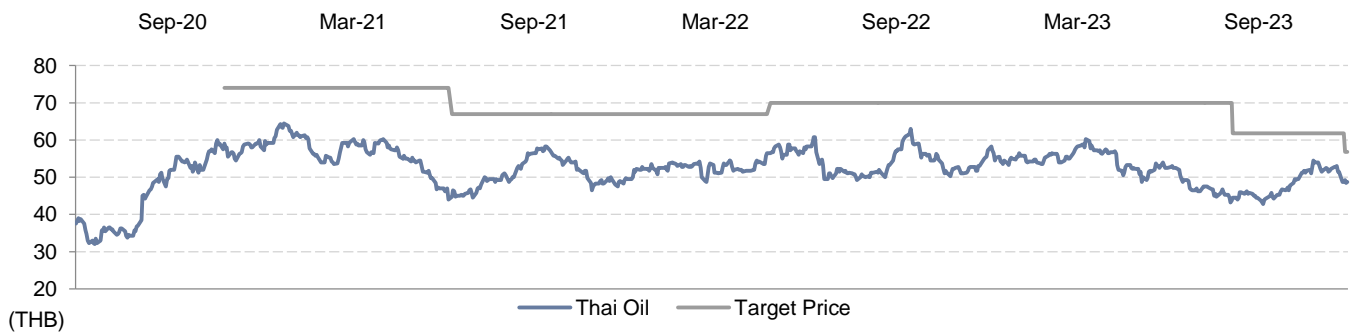
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
18-Feb-2021	BUY	17.40	31-Aug-2021	BUY	17.00	07-Jun-2023	BUY	15.10
13-Jul-2021	BUY	23.00	10-Nov-2022	BUY	13.00			

Kwanwaree Apichartsatoporn started covering this stock from 07-Jun-2023

Price and TP are in local currency

Source: FSSIA estimates

Thai Oil (TOP TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
18-Jan-2021	BUY	74.00	29-Apr-2022	BUY	70.00	05-Sep-2023	BUY	56.80
30-Jul-2021	BUY	67.00	01-Jun-2023	BUY	61.80			

Kwanwaree Apichartsatoporn started covering this stock from 01-Jun-2023

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Global Power Synergy	GPSC TB	THB 51.25	BUY	The downside risks to our DCF-based TP on GPSC include 1) lower-than-expected demand for electricity in Thailand; 2) higher-than-expected energy prices (i.e. coal and gas); and 3) lower-than-expected demand from industrial users.
Gulf Energy Development	GULF TB	THB 46.75	BUY	The downside risks to our SoTP-based TP for GULF include 1) a lower-than-expected Ft; 2) a higher-than-expected gas cost; and 3) delays in project commercial operation dates.
B.Grimm Power	BGRIM TB	THB 32.75	BUY	The downside risks to our DCF-based TP include 1) the volatility of gas costs and Ft rates; 2) lower-than-expected industrial user demand; and 3) unplanned shutdowns.
BCPG	BCPG TB	THB 10.00	BUY	The downside risks to our SoTP-based TP include: 1) lower-than-expected demand for electricity in Thailand and the Philippines; and 2) government intervention by way of electricity tariff subsidies; 3) lower-than-expected gas prices for gas-fired plants in the US and; 4) abnormal solar and wind factors.
Thai Oil	TOP TB	THB 48.75	BUY	Downside risks to our P/BV-based TP are 1) a sharp fall in oil prices; 2) weaker demand for refined oil products; 3) GRM volatility; 4) unplanned refinery shutdowns; and 5) longer-than-expected maintenance of SBM-2.

Source: FSSIA estimates

Additional Disclosures

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finansia Syrus Securities Public Company Limited

FSSIA may incorporate the recommendations and target prices of companies currently covered by FSS Research into equity research reports, denoted by an 'FSS' before the recommendation. FSS Research is part of Finansia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 08-Sep-2023 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

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

BUY (B). The upside is 10% or more.

HOLD (H). The upside or downside is less than 10%.

REDUCE (R). The downside is 10% or more.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Industry Recommendations

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.

Neutral. The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.

Underweight. The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

Country (Strategy) Recommendations

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.