Change in Numbers

Downside: 11.4%

TP: Bt 62.00

Global Power Synergy (GPSC TB)

Expensive turnaround

We reaffirm our SELL rating on GPSC for its expensive valuation as a utility company at 33x PE from an already strong turnaround earnings base in 2023F. We believe its 23x PE in 2024F already reflects a newhigh earnings base in 2025F with a flat growth outlook after that.



NUTTAPOP PRASITSUKSANT

662 – 483 8296 nuttapop.pra@thanachartsec.co.th

Reaffirming SELL with a Bt62 TP

We reaffirm our SELL rating on GPSC. First, we see GPSC as an expensive utility stock at 33x PE in 2023F, the year when we expect its profitability to start to recover from a very bad year in 2022F. Second, the stock still looks expensive to us at 23x PE in 2024F, when we forecast GPSC to enjoy a new-high earnings base from the full contribution of solar farms in India with profitability at its SPP plants also fully back to pre-energy price crisis level. That comes with a flat earnings outlook beyond 2025F. Third, GPSC's net D/E ratio is already at its targeted level, implying limited room for major acquisitions. It also, in our view, has to fulfill the mission to improve the carbon footprint for the PTT Group. This means it may have to continue investing more in relatively low-return renewable projects. Lastly, we are not excited about its EV and battery business given a slow progress.

Earnings turnaround story

We raise GPSC's earnings 5/14/6% in 2023-25F and our DCF-derived SOTP-based TP (2023F base year) to Bt62 (from Bt58). This implies Bt6.1/8.6/9.4bn of earnings in 2023-25F, vs. its preenergy price crisis level at Bt6.8bn in 2021 and a bad year of Bt1.3bn profit in 2022F. In brief, the collapse of 2022F's earnings is due to the SPP business suffering rising energy costs while the electricity tariff hasn't been effectively raised to offset the impact. We roughly estimate that the average energy cost increase is Bt1.6/unit but only Bt0.5/unit tariff hike in 2022F. In 2023F, we estimate a catch-up game where fuel costs fall Bt0.6/unit vs. Bt0.6/unit Ft hike. We expect margin to normalize further in 2024F on Bt0.6/unit fall in energy costs vs. Bt0.5/unit Ft drop.

Expiry of major assets

Of its total secured capacity of 6.7GW currently, 1.6GW of contracts will expire over 2022-25, including three SPP plants (914MW in total) from late-2022 to 2025 and the 700MW Sriracha IPP plant in 2025. Capacity growth from its renewable plants in India (Avadaa) and 149MW of wind farms in Taiwan in the period is unlikely to generate enough return to offset the expired capacity. GPSC has equity-owned operating capacity of 1.2GW from Avadaa in 2022F, gradually expanding to 2.0GW by 2025F.

Tight B/S limits room for expansion

GPSC's net D/E ratio does not look worrisome at 1.1x in 2022F, but it already meets the company's comfort target, which we suspect is linked to the overall debt level of the PTT Group. This limits room for future capacity growth in our view. The last two sizable investments by GPSC were Bt15bn in 2021 for the 43% stake in Avadaa, an Indian solar developer firm, and Bt18bn for 149MW in equity-owned capacity of wind farms in Taiwan this year. Both investments have yet to contribute sizable returns.

COMPANY VALUATION

Y/E Dec (Bt m)	2021A	2022F	2023F	2024F
Sales	74,874	115,321	112,692	97,898
Net profit	7,319	1,325	6,051	8,617
Consensus NP	_	2,746	6,321	8,751
Diff frm cons (%)	_	(51.7)	(4.3)	(1.5)
Norm profit	6,769	1,325	6,051	8,617
Prev. Norm profit	_	2,476	5,749	7,587
Chg frm prev (%)	_	(46.5)	5.2	13.6
Norm EPS (Bt)	2.4	0.5	2.1	3.1
Norm EPS grw (%)	(9.9)	(80.4)	356.7	42.4
Norm PE (x)	29.2	149.0	32.6	22.9
EV/EBITDA (x)	16.4	27.6	18.8	15.3
P/BV (x)	1.8	1.8	1.8	1.7
Div yield (%)	2.1	0.4	1.7	2.4
ROE (%)	6.4	1.2	5.5	7.6
Net D/E (%)	89.9	107.6	100.2	85.7

PRICE PERFORMANCE



COMPANY INFORMATION

Price as of 01-Dec-22 (Bt)	70.00
Market Cap (US\$ m)	5,646.7
Listed Shares (m shares)	2,819.7
Free Float (%)	24.8
Avg Daily Turnover (US\$ m)	14.6
12M Price H/L (Bt)	88.75/58.25
Sector	Utilities
Major Shareholder	PTT Group 67.27%

Sources: Bloomberg, Company data, Thanachart estimates

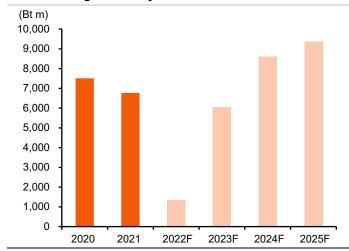
ESG Summary Report P6

Ex 1: Changes In Our Key Assumptions

	2020	2021	2022F	2023F	2024F	2025F
Gas pool price (Bt/mmbtu)						
New	245	266	475	420	340	335
Old			485	470	420	400
Change (%)			(2.1)	(10.6)	(19.0)	(16.3)
National electricity tariff (Bt/kWh)						
New	3.64	3.61	4.20	4.90	4.30	4.10
Old			4.20	5.10	5.00	4.70
Change (%)			-	(3.9)	(14.0)	(12.8)
Average SPP throughput margin (Bt/kWh)						
New	1.00	1.11	0.38	0.77	1.03	1.25
Old			0.32	0.63	0.73	0.94

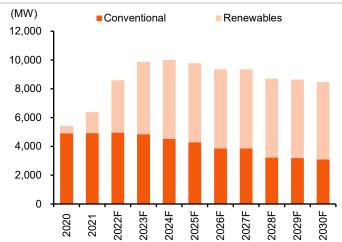
Sources: Company data, Energy Policy and Planning Office (EPPO), Thanachart estimates

Ex 2: Earnings Recovery Looks Priced In ...



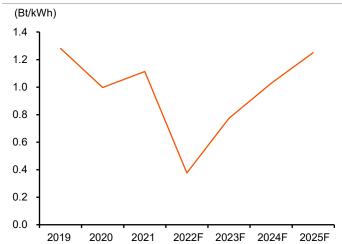
Sources: Company data, Thanachart estimates

Ex 3: ... While We're Concern Over Expiring Core Capacity



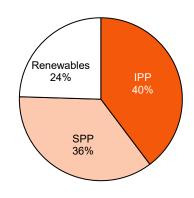
Sources: Company data, Thanachart estimates

Ex 4: Recovering Margin Throughput From SPP Plants



Sources: Company data, Thanachart estimates

Ex 5: GPSC's Operating Capacity Breakdown (2022F)



Sources: Company data, Thanachart estimates

Ex 6: Our 12-month DCF-derived Valuation Plus Potential Capacity

(Bt m)		2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Terminal value
EBITDA excl. depre from right of use		16,858	19,903	20,938	21,502	22,501	22,389	21,832	20,597	20,081	20,545	21,273	
Free cash flow		3,627	10,717	958	19,122	19,051	19,069	18,983	18,003	17,720	18,077	19,034	229,659
PV of free cash flow		3,418	9,515	802	15,075	13,848	13,002	12,143	10,805	9,978	9,548	8,993	108,509
Risk-free rate (%)	2.5												
Market risk premium (%)	8.0												
Beta	0.9												
WACC (%)	6.1												
Terminal growth (%)	2.0												
Enterprise value - add investments	215,637												
Net debt (2022F)	125,870												
Minority interest	9,766												
Equity value	80,000												
# of shares (m)	2,820												
Valuation/share (Bt)	28.4												

	Valuation method	WACC	Equity value	Value per share
Plus associates				
BIC	DCF	5.1%	1,451	0.5
TSR/SSE	DCF	6.4%	1,991	0.7
NNEG	DCF	4.9%	4,472	1.6
GRP	DCF	7.1%	1,620	0.6
NL1PC	DCF	6.0%	2,571	0.9
RPCL	DCF	4.8%	648	0.2
XPCL	DCF	6.0%	17,973	7.6
Avaada	DCF	6.5%	8,961	3.2
Taiwan wind farms	DCF	6.0%	3,189	1.1
24M battery plants	DCF	8.0%	27,735	9.8
Total				26.2
Plus potential				
Renewable projects	DCF	6.0%	20,726	7.4
Total				7.4
Grand total				62.0

Source: Thanachart estimates

Valuation Comparison

Ex 7: Comparison With Regional Peers

			EPS g	rowth	—— РЕ		— P/B	v —	—EV/EB	ITDA—	— Div yie	eld —
Name	BBG code	Country	22F	23F	22F	23F	22F	23F	22F	23F	22F	23F
			(%)	(%)	(x)	(x)	(x)	(x)	(x)	(x)	(%)	(%)
Huadian Power	1071 HK	China	na	45.2	8.7	6.0	0.5	0.5	17.8	12.5	6.6	8.8
Huaneng Power	600011 CH	China	51.2	na	na	15.5	1.3	1.2	15.4	9.7	0.3	3.3
Cheung Kong Infrastructure	1038 HK	Hong Kong	11.8	(4.5)	10.4	10.9	0.8	0.8	40.1	40.3	6.4	6.5
China Power Int'l	2380 HK	Hong Kong	na	65.7	14.2	8.6	0.9	8.0	10.2	7.7	3.5	5.2
China Resources Power	836 HK	Hong Kong	24.7	28.1	7.9	6.2	0.7	0.7	7.0	5.9	5.4	6.6
CLP Holdings	2 HK	Hong Kong	(43.2)	77.9	22.8	12.8	1.3	1.3	12.6	8.7	5.4	5.5
Hongkong Electric Holdings	6 HK	Hong Kong	6.5	(3.4)	12.6	13.0	1.0	1.0	35.7	62.2	7.1	7.1
Huaneng Power	902 HK	Hong Kong	na	78.9	11.2	6.2	0.5	0.6	14.1	9.3	3.7	5.6
Tata Power	TPWR IN	India	28.2	70.3	36.3	21.3	3.2	2.8	16.3	15.0	0.8	0.7
Tenaga Nasional	TNB MK	Malaysia	(8.0)	7.4	12.1	11.2	0.9	0.9	7.3	7.2	4.2	4.6
YTL Corp	YTL MK	Malaysia	na	181.3	na	45.0	0.5	0.5	10.7	28.8	3.9	5.1
YTL Power	YTLP MK	Malaysia	(105.4)	na	na	14.2	0.4	0.4	12.0	9.8	5.0	6.1
Manila Electric	MER PM	Philippines	9.3	1.5	12.6	12.4	3.2	2.9	8.7	7.8	5.4	5.6
BCPG Pcl *	BCPG TB	Thailand	(2.4)	(24.7)	13.5	18.0	1.0	1.0	8.9	10.5	3.1	3.1
B.Grimm Power Pcl *	BGRIM TB	Thailand	(68.6)	184.2	128.2	45.1	3.3	3.2	18.9	15.0	0.4	1.1
Banpu Power Pcl *	BPP TB	Thailand	23.6	14.7	15.9	13.9	1.0	1.0	44.3	35.1	4.4	5.0
CK Power Pcl *	CKP TB	Thailand	13.7	(4.5)	17.4	18.2	1.5	1.4	19.3	14.3	2.3	2.7
EA Pcl*	EA TB	Thailand	20.8	26.6	49.9	39.4	9.5	8.1	33.6	26.3	0.6	0.8
Electricity Generating *	EGCO TB	Thailand	15.4	(0.6)	7.6	7.7	0.7	0.7	18.8	17.8	3.8	4.1
Global Power Synergy *	GPSC TB	Thailand	(80.4)	356.7	149.0	32.6	1.8	1.8	27.6	18.8	0.4	1.7
Gulf Energy Dev. Pcl *	GULF TB	Thailand	22.2	37.4	57.7	42.0	4.9	3.9	41.5	32.8	1.0	1.4
Gunkul Engineering *	GUNKUL TB	Thailand	41.7	23.7	16.7	13.5	3.2	2.8	17.8	13.7	2.4	3.0
RATCH Group *	RATCH TB	Thailand	49.7	(19.9)	6.4	8.0	8.0	8.0	19.5	18.6	8.6	4.7
WHA Utilities & Power *	WHAUP TB	Thailand	45.9	9.3	10.9	10.0	1.2	1.1	26.2	23.2	5.5	6.0
Average			2.8	52.3	29.6	18.0	1.9	1.7	20.2	18.8	3.8	4.3

Sources: Bloomberg, * Thanachart estimates Based on 1 December 2022 closing prices

COMPANY DESCRIPTION

Established in January 2013, Global Power Synergy Company Ltd (GPSC) emerged from the amalgamation of PTTUT and IPT as PTT Group's flagship in power and utility businesses. GPSC generates and distributes electricity, steam, and processed water to the national grid and industrial customers in Thailand. GPSC acquired Glow Energy which doubled its generation capacity in March 2019. The company now has total of 8.0GW equity-capacity power plants, both domestic and overseas, in which 33% is from renewable sources.

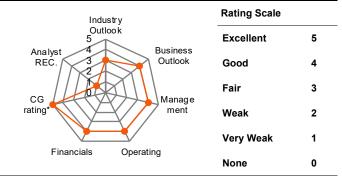
Source: Thanachart

THANACHART'S SWOT ANALYSIS

S — Strength

- Growing along with PTT Group's expansion.
- Access to low financing costs as part of PTT Group.
- Strong balance sheet providing ability and flexibility to fund new investments.

COMPANY RATING



Source: Thanachart; * CG rating

W — Weakness

- No direct experience in investing abroad.
- Late player in the renewable segment.

Opportunity

- Expansion into neighboring countries' power industries, both domestic and overseas expansion, through greenfield development and M&As.
- Tapping into new S-curve industries of electric vehicle (EV) and energy storage system (ESS) through its investment in Liion battery plant.

T — Threat

- Thailand's high reserve margin and EGAT's own planned generation look as if they will last longer than the market had earlier anticipated.
- Relies on group's policy in key investment decisions.

CONSENSUS COMPARISON

	Consensus	Thanachart	Diff
Target price (Bt)	75.57	62.00	-18%
Net profit 22F (Bt m)	2,746	1,325	-52%
Net profit 23F (Bt m)	6,321	6,051	-4%
Consensus REC	BUY: 12	HOLD: 6	SELL: 1

HOW ARE WE DIFFERENT FROM THE STREET?

- Our 2022-23F earnings forecasts are significantly lower than the Bloomberg consensus numbers, which we believe is because we assume a slower recovery in GSPC's SPP margin and ramp-up pace of its solar capacity in India.
- Our TP is therefore 18% lower.

RISKS TO OUR INVESTMENT CASE

- A faster-than-expected recovery of SPP margin, either from the cost or the tariff side, is the key upside risk to our investment case and earnings forecasts.
- A faster-than-expected development of its Li-ion battery plants in Thailand and in China represents a secondary upside risk to our valuation.
- A faster investment pace and a higher rate of return from asset acquisitions and new projects vs. our present assumptions would represent another upside risk to our numbers.

Sources: Bloomberg consensus, Thanachart estimates

Source: Thanachart

Global Power Synergy Pcl

Sector: Resources | Energy & Utilities

GPSC is the utilities investment arm of the PTT Group. It ran 6.1GW of power generating capacity in 2022; 52% gas, 17% coal, and 31% renewables. Its ESG policy is relatively strong since it needs to align its performance with PTT Group. We thus rate its ESG score at 3.2. But we see some negatives over its business sustainability and innovation aspects.



	SETTHSI Index	THSI Index	DJSI Index	MSCI (CCC-AAA)	Arabesque S-Ray (0-100)	Refinitiv (0-100)	S&P Global (0-100)	Moody's (0-100)	CG Rating (0-5)
GPSC	YES	YES	-	В	64.88	68.84	88.44	-	5.0

Sources: SETTRADE, SETTHSI Index, Thailand Sustainability Investment (THSI), The Dow Jones Industrial Average (DJSI), MSCI ESG Research LLC, Arabesque S-Ray®, Refinitiv ESG Information, S&P Global Market Intelligence, Moody's ESG Solutions, Thai IOD (CG rating) Note: Please see third party on "term of use" in the following back page.

Factors	Our Comments
ENVIRONMENT	 GPSC shares the same targets as PTT Group in achieving carbon neutrality by 2050 and net-zero emissions by 2060, slightly ahead of the country's goals. Its nearer-term
- Environmental Policies &	plan is to increase its renewable mix to 50% of its capacity by 2030 (from 31% in 2022),

- Guidelines
- **Energy Management Carbon Management**
- **Water Management**
- **Waste Management**
- and reduce its carbon emission intensity by 10% in 2025 and 35% in 2030, from 2020's
- GPSC allocates an annual budget to emission reduction equipment and technology, based on its internal carbon pricing policy to minimize air and water pollution from its plants.
- The 3Rs approach (Reduce, Reuse, and Recycle) is implemented to reduce waste creation from all its business activities.
- GPSC saved 1.78MWh of electricity consumption through efficiency measures and solar rooftop investments while emitting greenhouse gases (GHG) of 0.44kg CO2 equivalent per kWh of electricity generated in 2021.

SOCIAL

- **Human Rights**
- **Staff Management**
- **Health & Safety**
- **Product Safety & Quality**
- Social Responsibility
- GPSC sticks with the UN Guiding Principles (UNGP) in developing its human rights policies to protect the rights of its direct staff and all stakeholders along its supply chain.
- GPSC is committed to providing a self-development platform and building a clear career path for staff. This is based on the company's belief that its business success relies heavily on 1) an internal succession plan, 2) preparation to keep its staff up-to-date with industry dynamics, 3) ensuring morale/unity among staff, and 4) enjoying good employer branding.
- GPSC collaboratively provides support donations to communities around its power plants and facilities with other business entities under the PTT Group; thus it has significant impacts in boosting the local economy and quality of life.

GOVERNANCE & SUSTAINABILITY

- Board
- **Ethics & Transparency**
- **Business Sustainability**
- **Risk Management**
- Innovation

- GPSC's board of directors comprises 12 members, of whom seven them are independent directors and one is female.
- We see GPSC's corporate governance (including transparency) as very strong, in line with the protocols from the PTT Group.
- We are slightly concerned over GPSC's business sustainability as power purchase contracts for some big power plants are expiring and it now looks difficult amid the current market situation to find investment opportunities to acquire new plants to offset the gap.
- GPSC had a good initiative via an investment in 24M's Li-ion battery technology in 2017. However, it has yet to reach the commercialized stage despite already having launched various product prototypes with the support of the PTT Group.

Sources: Thanachart, Company note

INCOME STATEMENT

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
Sales	69,578	74,874	115,321	112,692	97,898
Cost of sales	56,448	63,616	110,713	102,737	85,156
Gross profit	13,129	11,258	4,608	9,955	12,742
% gross margin	18.9%	15.0%	4.0%	8.8%	13.0%
Selling & administration expenses	1,951	2,095	1,927	2,024	2,084
Operating profit	11,178	9,163	2,681	7,931	10,657
% operating margin	16.1%	12.2%	2.3%	7.0%	10.9%
Depreciation & amortization	8,706	9,314	9,028	9,067	9,388
EBITDA	19,885	18,477	11,708	16,998	20,045
% EBITDA margin	28.6%	24.7%	10.2%	15.1%	20.5%
Non-operating income	1,405	1,483	1,149	1,172	1,195
Non-operating expenses	0	0	0	0	0
Interest expense	(4,024)	(3,860)	(3,937)	(4,241)	(3,811)
Pre-tax profit	8,560	6,786	(108)	4,863	8,042
Income tax	993	1,031	0	754	1,287
After-tax profit	7,567	5,754	(108)	4,109	6,755
% net margin	10.9%	7.7%	-0.1%	3.6%	6.9%
Shares in affiliates' Earnings	924	1,536	1,786	2,475	2,738
Minority interests	(982)	(522)	(353)	(533)	(877)
Extraordinary items	(1)	550	0	0	0
NET PROFIT	7,508	7,319	1,325	6,051	8,617
Normalized profit	7,509	6,769	1,325	6,051	8,617
EPS (Bt)	2.7	2.6	0.5	2.1	3.1
Normalized EPS (Bt)	2.7	2.4	0.5	2.1	3.1

Heavily hit by a margin squeeze for SPPs

Already tight balance sheet to add new investments

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
ASSETS:					
Current assets:	43,454	45,490	57,136	50,595	44,915
Cash & cash equivalent	20,289	13,793	15,000	10,000	10,000
Account receivables	9,084	13,441	15,797	15,437	13,411
Inventories	6,253	6,938	12,133	11,259	9,332
Others	7,828	11,318	14,205	13,899	12,172
Investments & loans	17,376	37,660	44,522	54,560	55,238
Net fixed assets	99,978	95,581	93,060	88,518	90,032
Other assets	95,849	91,648	113,107	109,222	97,810
Total assets	256,656	270,379	307,825	302,895	287,995
LIABILITIES:					
Current liabilities:	22,063	23,036	37,179	36,500	31,043
Account payables	6,746	6,407	13,650	12,666	10,499
Bank overdraft & ST loans	0	0	5,635	5,270	4,754
Current LT debt	11,993	9,121	9,466	8,854	7,986
Others current liabilities	3,324	7,508	8,428	9,710	7,805
Total LT debt	102,239	110,474	125,769	117,631	106,102
Others LT liabilities	20,487	19,121	27,931	27,262	23,887
Total liabilities	144,789	152,632	190,879	181,393	161,033
Minority interest	8,966	9,413	9,766	10,300	11,177
Preferreds shares	0	0	0	0	0
Paid-up capital	28,197	28,197	28,197	28,197	28,197
Share premium	70,176	70,176	70,176	70,176	70,176
Warrants	0	0	0	0	0
Surplus	(17,563)	(15,219)	(15,219)	(15,219)	(15,219)
Retained earnings	22,091	25,180	24,026	28,048	32,631
Shareholders' equity	102,901	108,334	107,180	111,202	115,786
Liabilities & equity	256,656	270,379	307,825	302,895	287,995

Retained earnings

Sources: Company data, Thanachart estimates

CASH FLOW STATEMENT

2024F FY ending Dec (Bt m) 2020A 2021A 2022F 2023F Earnings before tax 8,560 6,786 (108)4,863 8,042 (993)(1,031)Tax paid (754)(1,287)8,706 9,314 9,028 9,067 9,388 Depreciation & amortization Chg In working capital 83 (5,381)(308)251 1,786 2,442 Chg In other CA & CL / minorities (3,391)3,198 (2,014)4,063 12,965 12,885 6,598 17,490 20,371 Cash flow from operations (7,235)(4,715)(4,200)(2,215)(8,590)Capex Right of use (2,973)78 (50)(50)(50)(68)(1,408)1,832 ST loans & investments 5 (20,284)(6,862)(10,038)(677)LT loans & investments 0 Adj for asset revaluation 0 0 0 0 5,520 3,526 (14,907)957 5,893 Chg In other assets & liabilities (4,751) (22,804)(24,187) (11,347)(3,424)Cash flow from investments 5,308 Debt financing (2,229)21,275 (9,115)(12,913)Capital increase 0 (3,666)(4,230)(2,479)(2,028)(4,034)Dividends paid Warrants & other surplus (1,834)2,344 Cash flow from financing (7,729)3,422 18,796 (11,143)(16,947)5,730 8,170 2,398 11,781 15,275 Free cash flow

Into a huge capex cycle over 2023-25F

VALUATION

Valuations now look expensive to us given its weak growth outlook

VALUATION	20204	2024 A	20225	20225	20245
FY ending Dec	2020A	2021A	2022F	2023F	2024F
Normalized PE(x)	26.3	29.2	149.0	32.6	22.9
Normalized PE - at target price (x)	23.3	25.8	131.9	28.9	20.3
PE(x)	26.3	27.0	149.0	32.6	22.9
PE - at target price (x)	23.3	23.9	131.9	28.9	20.3
EV/EBITDA (x)	14.7	16.4	27.6	18.8	15.3
EV/EBITDA - at target price (x)	13.5	15.2	25.7	17.4	14.2
P/BV (x)	1.9	1.8	1.8	1.8	1.7
P/BV - at target price (x)	1.7	1.6	1.6	1.6	1.5
P/CFO (x)	15.2	15.3	29.9	11.3	9.7
Price/sales (x)	2.8	2.6	1.7	1.8	2.0
Dividend yield (%)	2.1	2.1	0.4	1.7	2.4
FCF Yield (%)	2.9	4.1	1.2	7.7	6.0
(Bt)					
Normalized EPS	2.7	2.4	0.5	2.1	3.1
EPS	2.7	2.6	0.5	2.1	3.1
DPS	1.5	1.5	0.3	1.2	1.7
BV/share	36.5	38.4	38.0	39.4	41.1
CFO/share	4.6	4.6	2.3	6.2	7.2
FCF/share	2.0	2.9	0.9	5.4	4.2

Sources: Company data, Thanachart estimates

FINANCIAL RATIOS

I IIVAIVOIAL IVATIOS					
FY ending Dec	2020A	2021A	2022F	2023F	2024F
Growth Rate					
Sales (%)	4.5	7.6	54.0	(2.3)	(13.1)
Net profit (%)	84.9	(2.5)	(81.9)	356.7	42.4
EPS (%)	38.5	(2.5)	(81.9)	356.7	42.4
Normalized profit (%)	100.6	(9.9)	(80.4)	356.7	42.4
Normalized EPS (%)	50.3	(9.9)	(80.4)	356.7	42.4
Dividend payout ratio (%)	56.3	57.8	55.0	55.0	55.0
Operating performance					
Gross margin (%)	18.9	15.0	4.0	8.8	13.0
Operating margin (%)	16.1	12.2	2.3	7.0	10.9
EBITDA margin (%)	28.6	24.7	10.2	15.1	20.5
Net margin (%)	10.9	7.7	(0.1)	3.6	6.9
D/E (incl. minor) (x)	1.0	1.0	1.2	1.1	0.9
Net D/E (incl. minor) (x)	8.0	0.9	1.1	1.0	0.9
Interest coverage - EBIT (x)	2.8	2.4	0.7	1.9	2.8
Interest coverage - EBITDA (x)	4.9	4.8	3.0	4.0	5.3
ROA - using norm profit (%)	3.0	2.6	0.5	2.0	2.9
ROE - using norm profit (%)	7.4	6.4	1.2	5.5	7.6
DuPont					
ROE - using after tax profit (%)	7.4	5.4	na	3.8	6.0
- asset turnover (x)	0.3	0.3	0.4	0.4	0.3
- operating margin (%)	18.1	14.2	na	8.1	12.1
- leverage (x)	2.5	2.5	2.7	2.8	2.6
- interest burden (%)	68.0	63.7	(2.8)	53.4	67.8
- tax burden (%)	88.4	84.8	na	84.5	84.0
WACC (%)	6.1	6.1	6.1	6.1	6.1
ROIC (%)	5.0	3.9	1.1	2.9	3.8
NOPAT (Bt m)	9,882	7,770	2,278	6,702	8,952
invested capital (Bt m)	196,845	214,137	233,050	232,958	224,628

Net gearing is kept below 1.0x as per the company's internal policy

Sources: Company data, Thanachart estimates

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- 4. S&P Global (0-100) 5. Moody's ESG Solutions (0-100)

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SET has created a Thailand Sustainability Investment (THSI) list since 2015 for using as an alternative investment in the high performance ESG stocks for investors while, supporting the sustainable Thai companies. SET defines the sustainable companies as the companies that embrace risk management, supply chain management and innovations together with responsibility for environmental, social and governance aspects

As a result, SET has created the SETTHSI for the purpose of indicating the price of these sustainable companies that pass the market capital size and liquidity criteria.

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BB - BBB - A	AVERAGE: A company with a mixed or unexceptional track record of managing the most significant ESG risks and opportunities relative to industry peers
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ESG risk combines the concepts of management and exposure to arrive at an absolute assessment of ESG risk. We identify five categories of ESG risk severity that could impact a company's enterprise value

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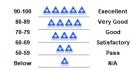
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Thanachart Securities Pcl.

Research Team

18 Floor, MBK Tower

444 Phayathai Road, Pathumwan Road, Bangkok 10330

Tel: 662 - 779-9119

Email: thanachart.res@thanachartsec.co.th

Pimpaka Nichgaroon, CFA

Head of Research Tel: 662-779-9199

pimpaka.nic@thanachartsec.co.th

Pattarawan Wangmingmat

Senior Technical Analyst Tel: 662-779-9105

pattarawan.wan@thanachartsec.co.th

Phannarai Tiyapittayarut

Property, Retail Tel: 662-779-9109

phannarai.von@thanachartsec.co.th

Sarachada Sornsong

Bank, Finance Tel: 662-779-9106

sarachada.sor@thanachartsec.co.th

Witchanan Tambamroong

Technical Analyst Tel: 662-779-9123 witchanan.tam@thanachartsec.co.th

Adisak Phupiphathirungul, CFA

Retail Market Strategy Tel: 662-779-9120 adisak.phu@thanachartsec.co.th

Nuttapop Prasitsuksant

Telecom, Utilities
Tel: 662-483-8296
nuttapop.pra@thanachartsec.co.th

Rata Limsuthiwanpoom

Auto, Industrial Estate, Media, Prop. Fund Tel: 662-483-8297 rata.lim@thanachartsec.co.th

Siriporn Arunothai

Small Cap, Healthcare, Hotel Tel: 662-779-9113 siriporn.aru@thanachartsec.co.th

Sittichet Rungrassameephat

Analyst, Quantitative Tel: 662-483-8303 sittichet.run@thanachartsec.co.th

Chak Reungsinpinya

Strategy, Insurance, Paper Tel: 662-779-9104 chak.reu@thanachartsec.co.th

Pattadol Bunnak

Electronics, Food & Beverage, Shipping Tel: 662-483-8298 pattadol.bun@thanachartsec.co.th

Saksid Phadthananarak

Construction, Transportation Tel: 662-779-9112 saksid.pha@thanachartsec.co.th

Yupapan Polpornprasert

Energy, Petrochemical Tel: 662-779-9110 yupapan.pol@thanachartsec.co.th

Thaloengsak Kucharoenpaisan

Analyst, Retail Market Tel: 662-483-8304

thaloengsak.kuc@thanachartsec.co.th