

PV Power (POW)

Positive outlook from thermal power

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Analyst Nguyen Dinh Thuan thuannd@kbsec.com.vn

2022 NPAT & revenue recorded positive growth

PV Power's (POW) 2022 NPAT reached VND2,323 billion (+14% YoY) on revenue of VND28.2 trillion (+15% YoY). Revenue growth was attributable to (1) positive output of gas and hydro power plants and (2) high electricity prices in line with the increase of input material costs.

Vung Ang 1 power plant is expected to return given brighter prospects of coal power in 2023 It is highly likely that El Nino would occur in 2023, which will affect hydropower plants. Therefore, thermal power plants such as Vung Ang 1 would have more chances to be mobilized. POW said the unit 1 of Vung Ang 1 plant should be inspected from mid–March 2023 and put into stable operation from the end of March 2023. If the plan happens as expected, we forecast Vung Ang 1's output at about 5.112 million kWh (+54.1% YoY). Besides, we also expect the plant to receive about VND300 billion in insurance compensation next year.

Nhon Trach 3 & 4 LNG gas power plant project is a long-term growth driver

Nhon Trach 3 & 4 gas power plant project should start operating between 2024 and 2025 and make a positive contribution to POW's gas-power prospects. With a total investment of USD1.4 billion, the project has a total capacity of 1,600MW and can generate an average of 9 billion kWh/year.

BUY recommendation with target price VND17,300/share

Based on SOTP and EV/EBITDA valuation and POW's business outlook and possible risks, we recommend BUY for POW stocks. The target price is VND17,300/share, 31.6% higher than the price on March 13, 2023.

20.0%

Buy maintain

Target price

Upside 31.6%		3M avg trading value (\	204.94	
Current price (Mar 13, 2023)	VND13,150	Foreign ownership	6.49%	
Consensus target price	VND15,700	Major shareholder		PetroVietnam (PVN,
Market cap (VNDbn)	29,507			79.94%)
Forecast earnings & valuation				
FY-end	2021A	2022A	2023F	2024F
Net revenue (VNDbn)	24,565	28,235	32,020	37,637
EBIT (VNDbn)	2,405	2,643	3,196	3,565
NPATMI (VNDbn)	1,779	1,894	2,838	2,844
EPS (VND)	760	809	1,212	1,214
EPS growth (%)	-23.9	6.4	50.0	0.0
P/E (x)	95.4	89.6	59.8	59.7
EV/EBITDA (x)	33.0	35.9	30.0	28.2
P/B (x)	5.3	5.1	4.2	3.6
ROE (%)	6.3	7.0	8.0	6.9
Dividend yield (%)	0.4	0.1	0.0	0.4

VND17,300

Trading data

Free float

Share price performance					
(%)	1M	3M	6M	12M	
Absolute	3	11	-10	-27	
Relative	7	8	8	3	



Source: Bloomberg, KB Securities Vietnam

Business performance

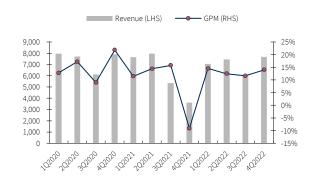
2022 NPAT & revenue recorded positive growth

POW's 2022 NPAT reached VND2,323 billion (+14% YoY) on revenue of VND28.2 trillion (+15% YoY). Revenue growth was attributable to (1) positive output of gas and hydro power plants and (2) high electricity prices in line with the increase of input material costs. To be more specific, the average gas price at gas power plants in 2022 beat the target by more than 20%. Coal prices at Vung Ang 1 factory also increased 40% compared to the plan. The prices of electricity on the electricity competitive generation market (CGM) grew YoY.

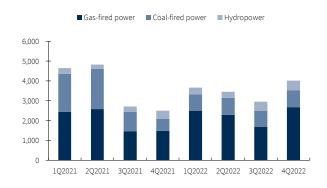
Power output is strongly supported by hydroelectricity and gas-fired power Commercial power output generated by POW in 2022 hit 14,197 million kWh (-4.1% YoY), of which hydroelectricity was 1.605 million kWh (+35% YoY), gas—fired power reached 9,155 million kWh (+15% YoY), and coal—fired power reached million kWh (-40% YoY). The strong growth of hydropower output in 2022 was achieved thanks to benefits from favorable water conditions. Coal power output dropped sharply due to an incident at unit 1 of Vung Ang thermal power plant starting from September 2021, causing Vung Ang thermal power to need a lengthy overhaul and repair, seriously affecting total production of POW. POW made efforts to finish the job and put unit 1 into operation by March 2023.

Fig 1. POW - Revenue & GPM (VNDbn, %)

Fig 2. POW - Power output (million kWh)



Source: PV Power, KB Securities Vietnam



Source: PV Power, KB Securities Vietnam

2

Table 1. POW – Business performance in 2021–2022

	2021	2022	% YoY	Notes
Total output (million kWh)	14,684.37	14,078.00	-4%	Output decreased slightly due to the impact of the incident at Vung Ang thermal power plant and lack of gas at Ca Mau 1 $\&$ 2 thermal power plants
Gas-fired power	7,946.17	9,155.00	15%	Gas power output is positive thanks to the recovery of electricity demand, especially in the South, compared to the low period in 2021
Coal-fired power	5,553.30	3,318.00	-40%	Lower output is attributable to the Impacts from the incident of unit 1 of Vung Ang thermal power plant
Hydropower	1,184.90	1,605.00	35%	Favorable water condition helps hydroelectricity to be mobilized more
Avgerage price (VND/kWh)	1,657	1,889	14%	High prices mainly resulted from by the increase in input raw materials (gas & coal)
Gas-fired power	1,874	2,015	8%	Gas power prices increased due to the influence of Brent oil price increase
Coal-fired power	1,464	1,888	29%	The prices of coal power increased due to higher input costs amid the scarcity of coal supply
Hydropower	1,105	1,174	6%	Higher average power price was thanks to higher CGM prices
Revenue (VNDbn)	24,565	28,235	14.9%	Positive revenue was attributable to higher prices of electricity compared to the same period last year and good mobilized power output from gas and hydro power plants
Gas-fired power	14,894	18,449		
Coal-fired power	8,131	6,265		
Hydropower	1,309	1,884		
Gross profit (VNDbn)	2,542	3,766	48%	
Gross profit margin (%)	10.35%	13.34%		Higher GPM was achieved thanks to positive price movements on the CGM
SG&A expense (VNDbn)	138	1,124		SG&A expenses surged because NT2 had to record provision for receivables from EVN
SG&A to revenue ratio (%)	0.6%	4%		
Profit from operating activities (VNDbn)	2,405	2,643		
Financial income (VNDbn)	697	435		
Financial expenses (VNDbn)	671	636		Financial expenses increased over the same period due to the recognition of foreign exchange losses
Other net incomes (VNDbn)	19.86	67.32		
Pre-taxes profit (VNDbn)	2,319	2,564	11%	
Post-taxes profit (VNDbn)	2,302	2,323	14%	
Net income margin (%)	8.3%	8.2%		

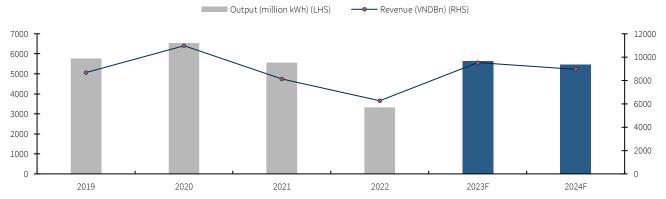
Investment catalysts

Coal-fired power: Vung Ang 1 power plant is expected to benefit from El Nino in 2023

KBSV expects the demand for electricity to increase in the period of 2022–2030 to serve economic development. According to the draft Power Master Plan 8, in the base case, the national commercial electricity growth rate is forecasted to average 9.09% for the 2021–2025 period and 7.95% for the 2026–2030 period. The expected increase in demand will strengthen the outlook for the power sector as plants will be ordered higher power capacity. Coal power still accounts for the main proportion in total mobilization structure in recent years as this generation source is more stable than hydropower and renewable energy that heavily depend on weather factors. In particular, El Nino has a high probability of occurrence in 2023, which will affect hydropower plants and benefit thermal power plants like Vung Ang 1.

POW said the unit 1 of Vung Ang 1 plant should be inspected from mid–March 2023 and put into stable operation from the end of March 2023. If the plan happens as expected, the resumption of the unit 1 would help Vung Ang 1's output reach 5.112 million kWh (+54.1% YoY). Besides, we also expect the plant to receive about VND300 billion in insurance compensation next year

Fig 3. POW - Thermal power output & sales of Vung Ang 1 (million kWh, VNDbn)



Gas-fired thermal power: there is room for growth in 2023

Gas power output in 2022 grew positively from the low base in 2021. However, gas power plants can even grow further in 2023. First, we expect input gas prices to decrease in line with the forecast of Brent oil price reaching about USD85/barrel this year. Reduced input will create competitive advantages for POW's gas power plants compared to other power sources, especially those using imported coal. Besides, electricity demand is forecasted to continue to increase in the future. Gas power should be prioritized as additional capacity from renewable energy and coal is limited due to many policy constraints.

Nhon Trach 3 & 4 LNG gas power plant project is a long-term growth driver

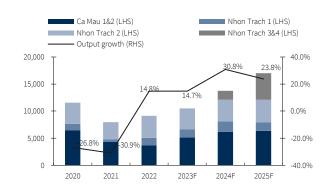
Nhon Trach 3 & 4 gas power plant project should start operating between 2024 and 2025 and make a positive contribution to POW's gas-power prospects. With a total investment of USD1.4 billion, the project has a total capacity of 1,600MW and can generate an average of 9 billion kWh/year. The input of the two plants is imported LNG with a consumption rate of 1.2 million tons/year. Nhon Trach 3 & 4 should help increase the total power generation capacity of POW to 5,705 MW, an increase of 36%.

By the end of September 2022, the project has completed many important works and been on schedule. We expect Nhon Trach 3 & 4 to come into operation from 4Q24 due to positive progress in site leveling, clearance and capital mobilization. POW has also coordinated with Citibank Consulting Group (USA) and ING (Netherlands) to accumulate capital for the project given there is no guarantee from the Government. A domestic commercial loan of VND4,000 billion is awaiting final approval from Vietcombank. The rest are loans from export credit agencies and foreign trade. The prerequisite for signing the credit contract and disbursing capital is the signed power purchase agreement (PPA) and the gas sale agreement (GSA) because foreign sponsors will carefully assess the cash flow and project effectiveness. However, the negotiation of output commitments for the project still faces many obstacles. While the provision on the offtake price has been approved, the proposal to commit to buy 80-90% of the average contract output (Qc) for 15 years has not been decided yet. Therefore, even though the project is ready for the construction phase, the company has not finalized the terms of PPA and GSA. The Qc commitment is an important premise for POW to sign long-term LNG supply contracts and avoid the risk of price fluctuations.

Fig 4. Global - Gas prices (USD/ton)

Fig 5. POW - Gas-fired output (million kWh)





Source: GENCO3, Bloomberg, KB Securities Vietnam

Source: PV Power, KB Securities Vietnam

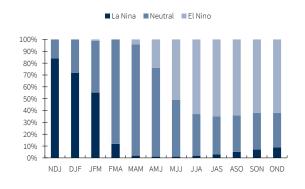
Hydropower sector: unfavorable hydrological situation as in 2022 affects output

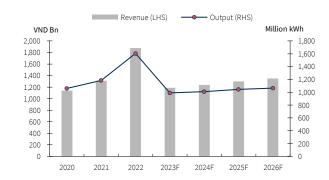
According to the forecast of the International Institute for Social and Climate Research (IRI) and the National Center for Hydro–meteorological Forecasting, only, in 2023, the probability of El Nino occurrence will increase, especially above the threshold of over 50% from May 2023. This means that the amount of water entering the lake for hydroelectric power plants will be reduced compared to the period of 2021 – 2022. The power output of hydroelectric plants will also be affected accordingly.

Therefore, we forecast hydropower output will drop to 990 million kWh (-38% YoY). Output will remain stable for the following years. According to our calculations, the average selling price of electricity is estimated at 1,174 thousand VND/kwh. Electricity selling price is expected to increase steadily by 2% per year due to price slippage.

Fig 6. Global - Probability of El Nino

Fig 7. POW – Hydropower output & sales (million kWh, VNDbn)





Source: PV Power, KB Securities Vietnam

Source: PV Power, KB Securities Vietnam

6

Forecast & valuation

2023E revenue and NPAT grow by 13.4% YoY and 40.7% YoY

We estimate POW's 2023 revenue and NPAT will reach VND32,020 billion (+13.4% YoY) and VND3,269 billion (+40.7% YoY) respectively, based on the following assumptions:

- The average price of Brent oil in 2023 will reach USD85/barrel, leading to the average input gas price reaching USD9.16 /MMBTU (-2% YoY).
- The annual average CGM price is VND1,500/kWh.
- Vung Ang 1 will put unit 1 into operation at the end of 1Q23.
- In 2023, POW recorded VND300 billion in compensation for the incident in Vung Ang 1.

Table 2, POW - 2023E business results

	2022	2023F	% YoY	Notes
Total output (million kWh)	14,078	17,118	21.6%	
Gas-fired power	9,155	10,505	14.7%	Gas power output increased thanks to higher demand and unfavorable water supply for hydro power plants
Coal-fired power	3,318	5,623	69.5%	Unit 1 of Vung Ang thermal power plant is expected to operate from the end of 1Q23
Hydropower	1,605	990	-38.3%	Unfavorable water condition with high probability of El Nino from May onwards threatens the water reserve of hydro power plants and may affect their output.
Average price (VND/kWh)				
Gas-fired power	2,015	1,999	-1%	The input costs are expected to go down, leading to a slight decrease in the
Coal-fired power	1,888	1,694	-10.3%	electricity prices
Hydropower	1,174	1,201	2%	Hydropower prices are adjusted to increase 2% due to price slippage
Revenue (VNDbn)	28,235	32,020	13.4%	
Gas-fired power	18,449	20,996	13.8%	
Coal-fired power	6,265	9,528	52.1%	
Hydropower	1,884	1,189	-36.9%	
Gross profit (VNDbn)	3,767	4,471	18.7%	
Gross profit margin (%)	13.34%	14.00%		GPM increased thanks to the assumption that the input costs will decrease while the prices of electricity remain high
SG&A expense (VNDbn)	1,124	1,275	13.4%	
SG&A to revenue ratio (%)	4.00%	4.00%		
Profit from operating activities (VNDbn)	2,643	3,196		
Financial income (VNDbn)	435	877		Financial income may increase thanks to extra profit recognition and increased cash ratio
Financial expenses (VNDbn)	636	535		
Other net incomes (VNDbn)	61	20		
Pre-taxes profit (VNDbn)	2,564	3,608	40.7%	
Post-taxes profit (VNDbn)	2,323	3,269	40.7%	
Net income margin (%)	8.20%	10.21%		

Valuation

We use the SOTP and the EV/EBITDA method with the ratio 50–50 to value POW stock and recommend BUY with a target price of VND17,300/share, 31.6% higher than the closing price on March 13, 2023.

We changed the target price, based on the adjustment of electricity prices and commercial power output. POW's output rebounded thanks to the recovery of Ca Mau 1&2 and Vung Ang 1 thermal power plants. In addition, the target EV/EBITDA was also lowered to 8x in line with the past and average EV/EBITD of the industry. Our valuation does not include the large LNG Nhon Trach 3&4 gas thermal power project because there is no detailed information about the project's PPA contract and the method of calculating the price of LNG in Vietnam.

Table 3, POW - SOTP valuation

Valuation	Method	Value of POW
Ca Mau 1&2	DCF	5,669
Nhon Trach 1	DCF	7,876
Nhon Trach 2	DCF	5,056
Hua Na	DCF	3,706
Dakdrinh	DCF	2,804
Vung Ang 1	DCF	15,520
Total enterprise value		40,631
(+) Cash & Short-term investments		18,794
(-) Net debt		-18,145
(-) Minority interests		-3,102
Total Equity value		38,178
No. of outstanding shares (million shares)		2,341.90
Target price		16,302

Source: KB Securities Vietnam

Table 4. POW - Final valuation & target price

Valuation method	Forecast price	Weight	Price per weight
SOTP	16,302	50%	8,151
EV/EBITDA (8x)	18,226	50%	9,113
Target price (rounded)			17,300
Current price (13/03/2023)			13,150
Upside			31.6%

Source: KB Securities Vietnam

POW - 2021A-2023F financials

Net sales Cost of sales Gross Profit Financial income Financial expenses of which: interest expenses Gain/(loss) from joint ventures (from 2015) Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses Net other income/(expenses)	24,565 - 22,023 2,543 697 -671 -510 44 -9	28,235 - 24,468 3,767 435 -636 -437	32,020 - 27,549 4,471 1,264 -1,179	37,637 - 32,574 5,063	CURRENT ASSETS Cash and cash equivalents	52,950 16,897	56,641 24,685	74,017 42,074	85,023
Gross Profit Financial income Financial expenses of which: interest expenses Gain/(loss) from joint ventures (from 2015) Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses	2,543 697 -671 -510 44 -9	3,767 435 -636	4,471 1,264	5,063	·		24,685	42,074	46 212
Gross Profit Financial income Financial expenses of which: interest expenses Gain/(loss) from joint ventures (from 2015) Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses	2,543 697 -671 -510 44 -9	3,767 435 -636	4,471 1,264	5,063	·				46,313
Financial income Financial expenses of which: interest expenses Gain/(loss) from joint ventures (from 2015) Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses	697 -671 -510 44 -9	435 -636	1,264			8,224	8,277	17,089	12,243
Financial expenses of which: interest expenses Gain/(loss) from joint ventures (from 2015) Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses	-671 -510 44 -9	-636		1,435	Short-term investments Accounts receivable	531	1,624	1,705	1,790
of which: interest expenses Gain/(loss) from joint ventures (from 2015) Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses	-510 44 -9			-1,320	Inventories	5,802	12,284	10,088	11,343
Gain/(loss) from joint ventures (from 2015) Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses	-9		-1,179	-1,320	LONG-TERM ASSETS	1,838	2,086	2,113	2,410
Selling expenses General and admin expenses Operating profit/(loss) Other incomes Other expenses		9	9	9	Long-term trade receivables	36,053	31,956	31,943	38,71
General and admin expenses Operating profit/(loss) Other incomes Other expenses	-129	0	0	0	Fixed assets	0	0	0	
Other incomes Other expenses		-1,124	-1,275	-1,498	Investment properties	31,869	29,155	29,142	35,909
Other expenses	2,475	2,451	3,290	3,689	Long-term incomplete assets	395	937	937	93
•	20	67	67	67	Long-term investments	0	0	0	
Net other income/(expenses)	140	7	7	7	TOTAL ASSETS	0	0	0	
recourse income, (expenses)	-120	60	60	60	LIABILITIES	20,817	23,535	33,828	37,82
Income from investments in other entities	0	0	0	1	Current liabilities	16,712	18,307	19,173	20,48
Net accounting profit/(loss) before tax	2,355	2,511	3,350	3,749	Trade accounts payable	7,228	7,350	8,246	9,69
Corporate income tax expenses	-287	-241	-315	-352	Advances from customers	6	4	13	1
Net profit/(loss) after tax	2,032	2,323	3,036	3,398	Short-term unrealized revenue	5,702	5,635	5,337	4,81
Minority interests	254	429	400	448	Short-term borrowings	4,106	5,229	14,655	17,34
Attributable to parent company	1,779	1,894	2,636	2,950	Long-term liabilities	0	0	0	
Marain ratio					Long-term trade payables Long-term advances from	0	0	0	
Margin ratio	2021	2022	2023F	2024F	customers Unrealized revenue	2,756	3,382	12,808	15,49
Gross profit margin	10.4%	13.3%	14.0%	13.5%		32,133	3,382	40,189	47,19
Gross profit margin EBITDA margin	21.3%	19.3%	18.1%	17.1%	Long-term borrowings OWNER'S EQUITY	23,419	23,419	23,419	23,41
EBIT margin	9.8%	9.4%	10.0%	9.5%	Paid-in capital	23,419	23,419	23,419	23,41
Pre-tax profit margin	9.4%	9.1%	10.5%	10.0%	Share premium	4,018	3,308	3,036	3,39
Operating profit margin	10.1%	8.7%	10.3%	9.8%	Undistributed earnings	2,209	3,677	3,869	3,86
Net profit margin	8.3%	8.2%	9.5%	9.0%	Minority interests	2,487	2,702	3,102	3,55
(VND billion) Net profit/(loss) before tax	2021 2,319	2022 2,564	2023F 3,351	2024F 3,750	Multiple				
Depreciation and amortisation	2,818	2,809	2,606	2,864	P/E	23.0	14.5	15.7	14.
Profit/loss from investing activities	-286	-286	-286	-286	P/E diluted	23.0	14.5	15.7	14.
Interest expense	510	437	1,179	1,320	P/B	1.3	0.8	1.0	0.
Operating profit/(loss) before changes in Working	4,482	5,524	6,850	7,648	P/S	1.7	1.0	1.3	1.
Capital (Increase)/decrease in receivables	1,848	-4,788	2,196	-1,255	P/Tangible Book	1.3	0.8	1.0	0.
(Increase)/decrease in inventories	-390	-146	-27	-297	P/Cash Flow	7.6	8.6	4.1	5.
Increase/(decrease) in payables	2,194	1,390	896	1,447	EV/EBITDA	8.4	9.8	7.9	8.
(Increase)/decrease in prepaid expenses	-1,693	1,887	1,887	1,887	EV/EBIT	18.2	20.1	14.3	14.
Net cash inflows/(outflows) from operating activities	5,389	3,178	10,082	7,657	Operating performance				
Purchases of fixed assets and other long-term assets	-274	-2,562	-9,606	-	ROE	6.3%	7.0%	7.6%	7.29
· ·		,	,	13,173					
Proceeds from disposal of fixed assets	2	2	0	0	ROA	3.8%	4.1%	4.1%	4.09
Loans granted, purchases of debt instruments	-299	-1,438	-1,438	-1,438	ROIC	7.1%	7.4%	7.4%	6.29
Collection of loans, proceeds from sales of debts instruments	250	286	286	286	Financial structure				
Investments in other entities	0	-22	-22	-22	Cash Ratio	0.5	0.5	1.0	0.
Proceeds from divestment in other entities	338	3	3	3	Quick Ratio	0.9	1.2	1.5	1.
Dividends and interest received	305	365	365	365	Current Ratio	1.0	1.4 10%	2.2 32%	2.
Net cash inflows/(outflows) from investing activities Proceeds from issue of shares	320	-3,367 0	10,398 0	13,965 0	LT Debt/Equity LT Debt/Total Assets	9% 5%	6%	17%	339 189
Payments for share returns and repurchases	0	0	0	0	Debt/Equity	18%	17%	13%	109
Proceeds from borrowings	13,617	8,027	9,128	2,165	Debt/Total Assets	11%	10%	7%	69
Repayment of borrowings	-	-7,587	0	0	ST Liabilities/Equity	52%	55%	48%	439
-	17,462	-			· · ·				
Finance lease principal payments	0	0	0	0	ST Liabilities/Total Assets	32%	32%	26%	249
Dividends paid	-710	-199	0	-703	Total Liabilities/Equity	65%	71%	84%	809
Interests, dividends, profits received	0	0	0	0	Total Liabilities/Total Assets	39%	42%	46%	449
	-4,555	241	9,128	1,462	Activity ratios				
Net cash inflows/(outflows) from financing activities					A Di bl- T				3.
Net cash inflows/(outflows) from financing activities Net increase in cash and cash equivalents Cash and cash equivalents at the beginning of period	1,154 7,070	53 8,224	8,812 8,277	-4,846 17,089	Account Receivable Turnover Inventory Turnover	3.8 12.4	3.1 12.5	2.9 13.0	13.

KB SECURITIES VIETNAM RESEARCH

Nguyen Xuan Binh - Head of Research

binhnx@kbsec.com.vn

Equity

Duong Duc Hieu - Head of Equity Research

hieudd@kbsec.com.vn

Banks, Insurance & Securities

Nguyen Anh Tung – Senior Analyst

tungna@kbsec.com.vn

Nguyen Duc Huy - Analyst

huynd1@kbsec.com.vn

Real Estate, Construction & Materials

Pham Hoang Bao Nga - Senior Analyst

ngaphb@kbsec.com.vn

Nguyen Duong Nguyen - Analyst

nguyennd1@kbsec.com.vn

Industrial Real Estate, Logistics

Nguyen Thi Ngoc Anh - Analyst

anhntn@kbsec.com.vn

Retails & Consumers

Pham Phuong Linh - Analyst

linhpp@kbsec.com.vn

Oil & Gas, Utilities

Nguyen Dinh Thuan – Analyst

thuannd@kbsec.com.vn

Research Division

research@kbsec.com.vn

Macro/Strategy

Tran Duc Anh - Head of Macro & Strategy

anhtd@kbsec.com.vn

Macroeconomics & Banks

Le Hanh Quyen - Analyst

quyenlh@kbsec.com.vn

Strategy, Chemicals

Thai Huu Cong - Analyst

congth@kbsec.com.vn

Strategy, Fishery & Textiles

Tran Thi Phuong Anh - Analyst

anhttp@kbsec.com.vn

Support team

Nguyen Cam Tho - Assistant

thonc@kbsec.com.vn

Nguyen Thi Huong - Assistant

huongnt3@kbsec.com.vn

KB SECURITIES VIETNAM (KBSV)

Head Office:

Levels G, M, 2 & 7, Sky City Tower, 88 Lang Ha Street, Dong Da District, Hanoi, Vietnam Tel: (+84) 24 7303 5333 – Fax: (+84) 24 3776 5928

Hanoi Branch:

Level 1, VP Building, 5 Dien Bien Phu, Ba Dinh District, Hanoi, Vietnam Tel: (+84) 24 7305 3335 - Fax: (+84) 24 3822 3131

Ho Chi Minh Branch:

Level 2, TNR Tower Nguyen Cong Tru, 180–192 Nguyen Cong Tru Street, District 1, HCMC, Vietnam Tel: (+84) 28 7303 5333 - Fax: (+84) 28 3914 1969

Saigon Branch:

Level 1, Saigon Trade Center, 37 Ton Duc Thang, Ben Nghe Ward, District 1, HCMC, Vietnam Tel: (+84) 28 7306 3338 - Fax: (+84) 28 3910 1611

CONTACT INFORMATION

Institutional Client Center: (+84) 28 7303 5333 - Ext: 2656 Private Customer Care Center: (+84) 24 7303 5333 - Ext: 2276

Email: ccc@kbsec.com.vn Website: www.kbsec.com.vn

Investment ratings & definitions

Investment Ratings for Stocks

(based on expectations for absolute price gains over the next 6 months)

Buy:	Hold:	Sell:
+15% or more	+15% to -15%	-15% or more

Investment Ratings for Sectors

(based on expectations for absolute price gains over the next 6 months)

Positive:	Neutral:	Negative:
Outperform the market	Perform in line with the market	Undernerform the market

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