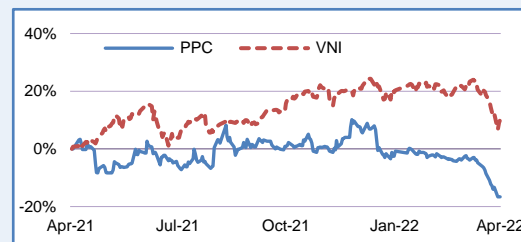


**Pha Lai Thermal Power JSC (PPC) [MARKET PERFORM +9.5%]**
**Update Report**

<b>Industry:</b>	<b>Utilities</b>					
<b>Report Date:</b>	<b>April 28, 2022</b>					
Current Price:	VND19,000	Rev Y/Y	-51.2%	2022F	2023F	2024F
Target Price:	VND20,000	EPS Y/Y	-78.6%	50.6%	30.9%	23.9%
Last Target Price:	VND22,800	NPAT (VND bn)	216	326	595	875
Upside to TP:	+5.3%	Dividend yield	4.2%	7.9%	7.9%	13.2%
Dividend Yield:	4.2%	DPS (VND)	800	1,500	1,500	2,500
TSR:	+9.5%	EV/EBITDA	-21.0x	N.M.	17.3x	7.7x
		P/E	29.4x	19.5x	10.7x	7.3x



Market Cap:	USD264mn		<b>PPC</b>	<b>Peers</b>	<b>VNI</b>
Foreign Room:	USD93mn	P/E (ttm)	27.3x	15.8x	15.2x
ADTV30D:	USD118,993	EV/EBITDA	N.M.	10.2x	N/A
State Ownership:	51%	Net D/E	-12.0%	66.0%	N/A
Outstanding Shares:	320.6 mn	ROE	4.7%	7.2%	15.7%
Fully Diluted Shares:	320.6 mn	ROA	4.1%	2.8%	2.6%

**Company Overview**

PPC owns two coal-fired power plants in northern Vietnam with capacity of 1,040 MW: Pha Lai 1 (4x110 MW, 34 years old) and Pha Lai 2 (2x300 MW, 17 years old). PPC also has respective 27% and 16% stakes in the Hai Phong (UPCoM: HND/1,200 MW) and Quang Ninh (UPCoM: QTP/1,200 MW) coal-fired plants.

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## Operation of Pha Lai 2's S6 generator delayed further

- We cut our target price for PPC by 12% to VND20,000/share and maintain a MARKET PERFORM rating. Our lower TP is due to a lower valuation for PPC's standalone power generation business.
- Based on our discussions with PPC, we assume the S6 generator (300 MW) at the Pha Lai 2 power plant (600 MW) will operate by mid-2023 instead of end-Q3 2022 as previously.
- As a result, we cut 2022/2023F NPAT by ~20%/30%, respectively, which is driven by a downward revision in Pha Lai 2's sales volume.
- We expect 2022F NPAT to rebound 50% YoY thanks to an expected recovery of Vietnam's overall power demand that should support a 27% YoY recovery in PPC's sales volume from a low base despite the technical issue at Pha Lai 2.
- PPC is trading at 2022/2023F PERs of 19.5x/10.7x, based on our forecast, which we believe look fair against our projected 50%/82% EPS growth for the respective years.
- Upside/downside risks: S6 generator resuming operation faster/slower than expected.

**S6 generator at Pha Lai 2 to resume operation by mid-2023 instead of end-Q3 2022.** [In our January 26, 2022 PPC Update Report](#), we expected that PPC could finish the repair of the S6 generator by end-Q3 2022. However, based on our recent discussions with PPC, we now assume this repair will likely be completed by mid-2023. Therefore, we cut our 2022 sales volume forecast for PPC by 7%.

**We forecast PPC's NPAT to jump 82% YoY in 2023** as industry players expect some electricity shortages in 2023 mainly due to potential national capacity growth of only ~5% in 2023 vs 10%-20% over the past three years (see page 10).

**Strong CGM price benefits PPC's associate companies despite a risk of coal shortages.** In Q1 2022, the sector's average competitive generation market (CGM) price was VND1,522/kWh (+38% YoY). We expect the sector's CGM price to strengthen in Q2 2022. We currently forecast a 2022 CGM price of VND1,280/kWh (+28% YoY). As such, we raise our 2022 NPAT forecasts for HND and QTP by 15% and 12%, respectively, as we expect the strong CGM price to outweigh coal shortages and higher coal prices.

**We forecast HND's NPAT to increase 33% to VND606bn in 2022.** In Q1 2022, HND had VND258bn of profit vs a loss of VND11bn in Q1 2021, completing 43% of our previous forecast.

**We forecast QTP's NPAT to climb 73% to VND824bn in 2022.** In Q1 2022, QTP had VND345bn of profit (+3x YoY), completing 47% of our previous forecast. QTP's AGM also approved DPS of VND1,600 for 2021 vs our forecast of VND1,000.

## Q1 2022 Recap: Strong CGM price supports core earnings

Figure 1: PPC's Q1 2022 results

VND bn	Q1 2021	Q1 2022	YoY growth	% of old 2022F	VCSC's comments for YoY growth performance
Sales volume (million kWh)	782	718	-8%	20%	* According to PPC, its contracted volume in Q1 2022 was 603 million kWh — 10% lower than the amount of contracted volume granted by EVN in Q1 2021. * Sales volume decreased 8% YoY as the S6 generator (300 MW) at the Pha Lai 2 power plant (600 MW) has been shut down since April 2021.
ASP (VND/kWh)	1,380	1,500	9%		
Average material cost (VND/kWh)	1,115	1,189	7%		* Average coal cost increased 7% mainly due to (1) a higher contribution from sales volume of the Pha Lai 1 plant that has a higher heat rate (requiring a higher amount of coal to generate the same unit of electricity) vs Pha Lai 2 and (2) an increased coal prices.
Price spread (VND/kWh)	265	311	17%		* Mainly driven by higher CGM price outweighing an increase in coal price
Revenue	1,079	1,077	0%	19%	* Mainly driven by higher coal and CGM prices.
COGS	-1,049	-1,036	-1%	19%	
Gross profit	30	42	40%	20%	* Thanks to strong CGM prices outweighing an increased coal prices.
G&A	-23	-25	7%	27%	
Operating profit (EBIT)	7	17	150%	15%	
Net interest income	22	10	-56%	14%	
Dividend income	97	59	-40%	23%	* QTP paid a VND800/share cash dividend in Q1 2022 on PPC's 72 million shares. HND paid a VND750/share cash dividend in Q1 2021 on PPC's 130 million shares.
Provision expense	22	0	N/A	N/A	
PBT	148	86	-42%	20%	
Income tax exp	-10	-5	-45%	15%	
PPC's reported NPAT	138	80	-42%	20%	* The plunge in Q1 2022 earnings was mainly driven by lower dividend income and no more reversal provision for financial investments in Quang Ninh Thermal Power JSC and EVNFinance JSC.
PPC's NPAT from power generation (*)	19	22	14%	15%	* Strong CGM prices outweighed an 8% YoY decrease in sales volume.
<b>ASSOCIATE COMPANIES:</b>					
HND's reported NPAT	-11	258	N/M	43%	EVN mobilized more contracted volume from HND and QTP (two coal-fired power plants in the North) as there was electricity shortage in northern Vietnam. In addition, QTP enjoyed strong CGM prices while the coal shortage was nominal.
QTP's reported NPAT	117	345	195%	47%	

Source: PPC, VCSC. (\*) NPAT from power generation = reported NPAT – dividend income & one-off item & others

## 2022 Outlook: PPC's earnings to rebound from low base — but at slower rate vs previous forecast

Figure 2: PPC's 2022 outlook

VND bn	2021	2022F	YoY	2022F New vs Old	VCSC's comments for: (1) 2022F forecast YoY changes (2) New vs old 2022F forecast
<b>Sales volume (million kWh)</b>	<b>2,683</b>	<b>3,419</b>	<b>27%</b>	<b>-7%</b>	(1) Mainly driven by a higher level of contracted volume granted by EVN due to an expected recovery of Vietnam's overall power demand. (2) Due to the prolonged shutdown of the S6 generator until mid-2023 vs our previous expectation of end-Q3 2022.
Pha Lai 1 (million kWh)	858	1,397	63%	0%	
Pha Lai 2 (million kWh)	1,825	2,022	11%	-11%	
ASP (VND/kWh)	<b>1,405</b>	<b>1,704</b>	<b>21%</b>	<b>9%</b>	
Average material cost (VND/kWh)	1,183	1,420	20%	14%	(1) Average material costs to increase 20% YoY mainly due to higher coal prices from Vinacomin.
Price spread (VND/kWh)	222	284	28%	-11%	(1) Mainly driven by higher coal prices outweighing an increased CGM prices.
<b>Revenue</b>	<b>3,868</b>	<b>5,827</b>	<b>51%</b>	<b>2%</b>	(1) Driven by a 27% recovery in sales volume and 21% ASP expansion. (2) Due to higher coal prices offsetting lower volume at Pha Lai 2 driven by the prolonged shutdown of the S6 generator to mid 2022
Normalized revenue	3,768	5,827	55%	2%	(1) Adjusted for VND100bn (USD4mn) in 2021 vs none in 2022F.
COGS	-4,102	-5,757	40%	4%	
<b>Gross profit</b>	<b>-234</b>	<b>70</b>	<b>N/M</b>	<b>-66%</b>	
Normalized gross profit	-334	70	-121%	-66%	
G&A	-87	-94	9%	1%	
<b>Operating profit (EBIT)</b>	<b>-320</b>	<b>-25</b>	<b>N/M</b>	<b>N/M</b>	
Net interest income	70	65	-8%	-5%	
Dividend received	382	294	-23%	17%	(1) Dividend income to decline 23% YoY as we forecast HND's cash dividend will decline in FY2022F after a record high payout in FY2021. (2) QTP's AGM approved a 2021 cash dividend of VND1,600/share vs our forecast of VND1,000/share. As such, we raise dividend income by 17% YoY.
Provision expense	24	0	N/A		
Net other income	21	0	N/A		
<b>PBT</b>	<b>177</b>	<b>334</b>	<b>88%</b>	<b>-23%</b>	
Income tax exp	39	-8	-120%	-78%	
<b>PPC's reported NPAT</b>	<b>216</b>	<b>326</b>	<b>51%</b>	<b>-18%</b>	(1) Mainly driven by a 27% YoY recovery in sales volume. (2) We revise down our forecast mainly due to lower volume due to Pha Lai 2's S6 generator issue and a lower price spread.
<b>PPC's adjusted NPAT*</b>	<b>71</b>	<b>326</b>	<b>359%</b>	<b>-18%</b>	
<b>HND's reported NPAT</b>	<b>455</b>	<b>606</b>	<b>33%</b>	<b>15%</b>	(1) Mainly driven by a recovery of contracted volume vs a low base. (2) We increase HND's reported NPAT by 15% due to higher ASP.
<b>QTP's reported NPAT</b>	<b>477</b>	<b>824</b>	<b>73%</b>	<b>12%</b>	(1) Mainly driven by a recovery of contracted volume vs a low base. (2) We increase QTP's reported NPAT by 12% due to higher ASP.

Source: PPC, VCSC. (\*) Excludes one-off income/expenses and FX gains/losses.

## Valuation

We continue to value PPC using a sum-of-the-parts (SOTP) approach that includes our DCF valuation of PPC's standalone power generation business (including Pha Lai 1 & 2) and an ownership-adjusted contribution of our discounted cash flow (DCF) valuations for HND and QTP. We believe this method better reflects PPC's value given our expectation that HND and QTP will finish paying down debt in the near term and thus contribute much larger dividends to PPC.

- We use the DCF method to value PPC's standalone cashflow, HND and QTP. The discounted cash flow method reflects the intrinsic value of the company and is the best method to value the stable cash flow of utilities companies.
- We continue to apply a **15% discount to our blended valuation to set our target price**, reflecting our view that the power sector currently offers somewhat limited transparency of information to investors. Vietnam is liberalizing its power sector, but there is scope for improving the available information about the pricing and operation mechanisms of the competitive generation/wholesale/retail market, in our view.
- We continue to apply an additional **5% discount to reflect the uncertainties regarding the potential delay of Pha Lai 2 power plant fully resuming operation**.

**We cut our target price for PPC by 12% to VND20,000/share.** Our lower target price is due to a lower valuation for PPC's standalone power generation business. We cut PPC's standalone business as we model in the prolonged technical issue of the S6 generator to mid-2023 vs our previous expectation of Q3 2022, resulting in lower contracted volume in 2022F.

**Figure 3: PPC's sum-of-the-parts valuation**

VND bn	Equity value	Ownership	Contribution
PPC's standalone power generation business	3,480	100%	3,480
HND	10,392	27%	2,775
QTP	10,584	16%	1,731
<b>Fair value (VND bn)</b>			<b>7,985</b>
Outstanding shares (million)			321
<b>Fair value per share (VND/share)</b>			<b>25,000</b>
Discount for sector's limited transparency			15.0%
Discount for Pha Lai 2's partial shutdown			5.0%
<b>Target price (VND/share)</b>			<b>20,000</b>
Upside %			5.3%
Dividend yield %			4.2%
<b>TSR %</b>			<b>9.5%</b>
2022F Reported PER at TP (x)			20.5

Source: VCSC

## DCF valuation for PPC's standalone power generation business

We maintain our terminal growth rate assumption of 0%. We lower our expectation for the potential cash flow contribution from the Pha Lai 3 (600 MW) power plant that is planned to break ground in 2023-2024 and come online in 2028. This assumption implies a zero net present value contribution from Pha Lai 3 to PPC that is potentially conservative given Vietnam's policy to guarantee a 10%-12% IRR for power generation plants. However, as there are potential risks to Vietnam's power investment policies due to the country's increasing consciousness on environmental issues, we are currently comfortable with the above assumption and will adjust it accordingly once more information is available.

**Figure 4: DCF valuation for PPC's standalone power generation business**

Cost of Capital	Old	New	FCFF (10 Year)					(VND bn)		
Beta	0.9	0.9	PV of Free Cash Flows					1,011		
Market Risk Premium %	7.0%	7.0%	PV of Terminal Val (0% g)					1,877		
Risk Free Rate %	5.5%	5.5%	PV of FCF and TV					2,888		
Cost of Equity %	11.8%	11.8%	+ Cash & ST investments					592		
Cost of Debt %	8.0%	8.0%	- Debt					0		
Debt %	0.0%	0.0%	- Minority Interest					0		
Equity %	100.0%	100.0%	Equity Value					3,480		
Corporate Tax Rate %	20.0%	20.0%								
WACC %	11.8%	11.8%								
(VND bn)	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F
EBIT	-25	272	673	806	872	880	888	898	934	1,035
+ Depreciation	29	46	46	46	36	36	36	226	200	200
- Tax	-8	-59	-138	-167	-183	-187	-183	-172	-175	-197
- Change in working cap	-498	-306	-311	47	-31	-67	-70	-24	-74	-19
- Capex	-100	-50	-50	-50	-50	-50	-1,050	-1,050	-200	-200
Free Cash Flow	-602	-97	220	683	644	612	-380	-122	685	819
Present Value of FCF	-569	-82	167	462	390	331	-184	-53	265	284
Cumulative PV of FCF	-569	-651	-484	-22	368	699	515	462	727	1,011

Source: VCSC forecast

## DCF valuation for HND

**Figure 5: DCF valuation for HND**

Cost of Capital	Old	New	FCFF (Five Years)		VND bn
Beta	0.9	0.9	PV of Free Cash Flows		4,915
Market Risk Premium %	7.0%	7.0%	PV of 2nd stage value		7,083
Risk Free Rate %	5.5%	5.5%	<b>PV of FCF and TV</b>		<b>11,998</b>
Cost of Equity %	11.8%	11.8%	Cash & ST investments		352
Cost of Debt %	6.0%	6.0%	Short & Long-term debt		-1,958
Target Debt % / Capital %	10.0%	10.0%	Minority Interest		0
Target Equity %	90.0%	90.0%	<b>Equity Value</b>		<b>10,392</b>
Corporate Tax Rate %	20.0%	20.0%	Number of shares (million)		500
<b>WACC %</b>	<b>11.1%</b>	<b>11.1%</b>	<b>Value per share, VND</b>		<b>20,783</b>

Source: VCSC

## DCF valuation for QTP

**Figure 6: DCF valuation for QTP**

Cost of Capital	Old	New	FCFF (Five Years)		VND bn
Beta	0.9	0.9	PV of Free Cash Flows		6,585
Market Risk Premium %	7.0%	7.0%	PV of 2nd stage value		5,721
Risk Free Rate %	5.5%	5.5%	<b>PV of FCF and TV</b>		<b>12,305</b>
Cost of Equity %	11.8%	11.8%	Cash & ST investments		437
Cost of Debt %	6.0%	6.0%	Short & Long-term debt		-2,158
Target Debt % / Capital %	20.0%	20.0%	Minority Interest		0
Target Equity %	80.0%	80.0%	<b>Equity Value</b>		<b>10,584</b>
Corporate Tax Rate %	5.0%	5.0%	Number of shares (million)		450
<b>WACC %</b>	<b>10.6%</b>	<b>10.6%</b>	<b>Value per share, VND</b>		<b>23,521</b>

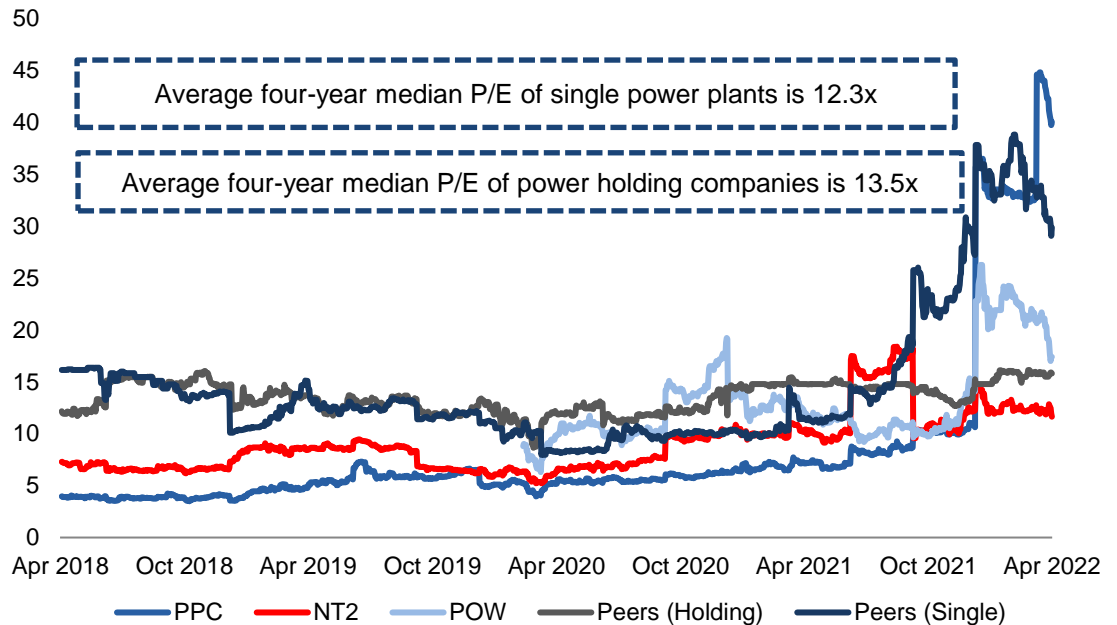
Source: VCSC



## Comparable Peers

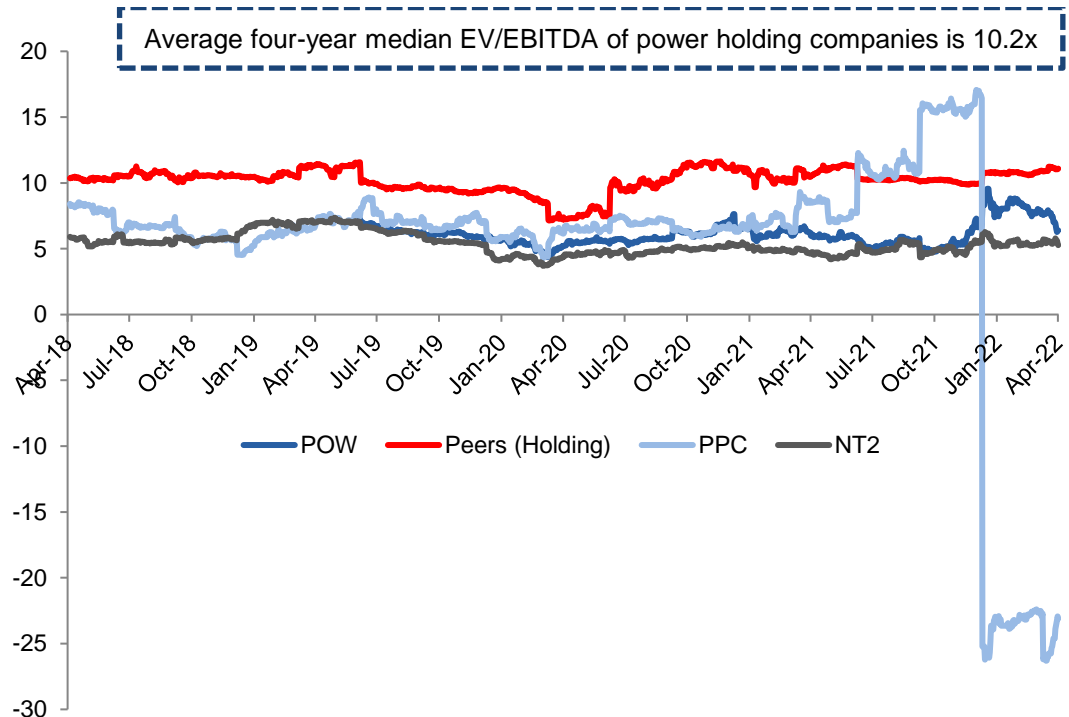
We have selected regional peers, including power holding companies that are consolidated or own stakes in several power plants — along with single power plants in Asia. All of these companies are power generators, but they differ from PPC in terms of power types, capacity and market mechanisms.

**Figure 7: Historical median trailing P/E on reported earnings of PPC vs peers (x)**



Source: Bloomberg, VCSC

**Figure 8: Historical median trailing EV/EBITDA of PPC vs peers (x) (\*)**



Source: Bloomberg, VCSC. (\*) PPC's TTM EBITDA is negative.

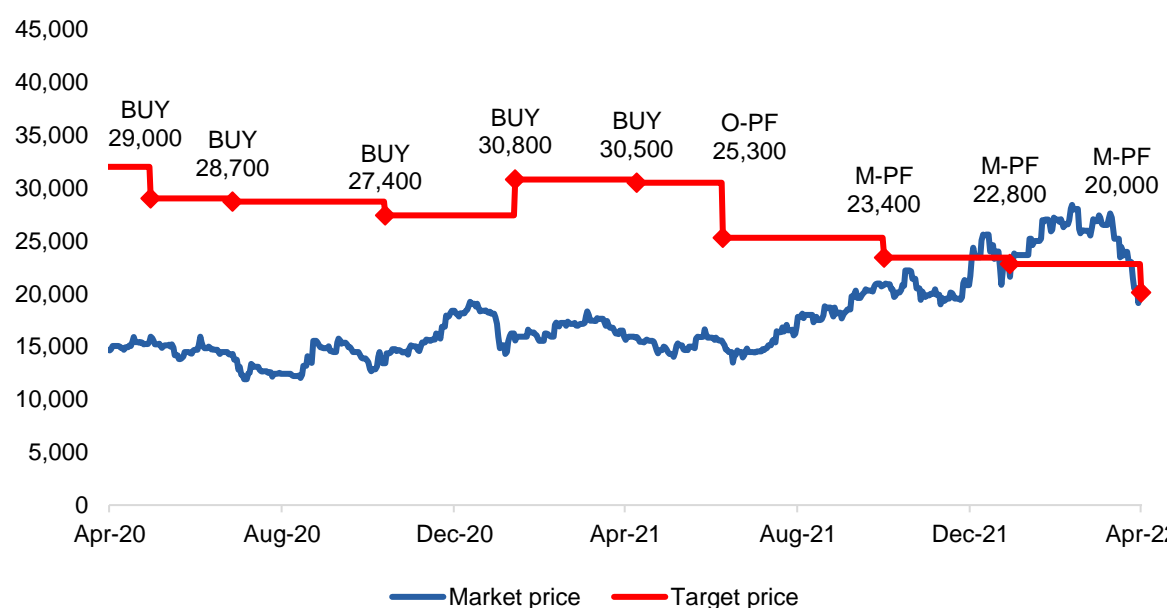


**Figure 9: Comparable Peers for PPC**

Short Name	Country	Mkt Cap (USD mn)	TTM Net sales (USD mn)	YoY (%)	TTM NPAT (USD mn)	YoY (%)	NET D/E (%)	ROA (%)	ROE (%)	Div yield (%)	TTM P/E (x)	LQ PBR (x)	EV/ EBITDA (x)
<b>Power Holding Companies</b>													
GLOBAL POWER	Thailand	5,787	2,343	8	229	-3	80	2.8	6.9	2.2	26.9	1.8	14.1
MANILA ELECTRIC	Philippines	7,310	6,465	16	477	44	17	5.4	26.9	4.5	16.3	4.0	9.3
RATCH GROUP PCL	Thailand	1,909	1,168	9	243	24	66	5.8	11.9	5.6	8.3	0.9	21.0
BANPU POWER PCL	Thailand	1,453	212	23	98	-16	30	5.0	7.2	4.0	15.8	1.1	193.9
YTL POWER INTL	Malaysia	1,396	3,453	43	(36)	N/A	159	(0.7)	(2.6)	6.0	N/A	0.5	11.1
TATA POWER CO	India	10,569	4,374	11	152	11	159	1.2	5.4	0.6	65.1	3.6	17.5
CIKARANG LISTRIN	Indonesia	751	515	11	90	21	22	6.7	13.2	8.5	8.2	1.1	4.5
FIRST PHILIP HLD	Philippines	651	2,540	17	203	2	40	2.6	8.9	3.1	3.5	0.3	5.0
MMC CORP BHD	Malaysia	N/A	1,141	7	89	100	90	2.1	5.6	N/A	N/A	N/A	8.8
<b>Median</b>		<b>1,681</b>	<b>2,343</b>	<b>11</b>	<b>152</b>	<b>16</b>	<b>66</b>	<b>2.8</b>	<b>7.2</b>	<b>4.3</b>	<b>15.8</b>	<b>1.1</b>	<b>11.1</b>
<b>Single power plants</b>													
GUANGZHOU HENG	China	798	609	13	25	-79	102	1.1	3.1	3.3	32.3	1.0	44.1
GEPIC ENERGY D	China	1,096	312	-11	40	-41	109	1.4	3.8	2.5	27.4	1.0	13.5
GUIZHOU QIANYU	China	769	316	-23	36	-47	166	1.4	7.2	2.2	21.3	1.5	11.4
YUNNAN WENSHAN	China	920	335	15	2	-86	9	0.5	0.7	0.6	434.0	2.8	36.6
VIVANT CORP	Philippines	326	65	47	36	23	-5	N/A	N/A	2.1	9.6	N/A	16.3
SAHACOGEN	Thailand	173	132	6	3	-4	47	1.4	3.1	1.2	46.5	1.5	13.6
<b>Median</b>		<b>783</b>	<b>314</b>	<b>10</b>	<b>30</b>	<b>-44</b>	<b>75</b>	<b>1.4</b>	<b>3.1</b>	<b>2.1</b>	<b>29.8</b>	<b>1.5</b>	<b>14.9</b>
<b>PPC</b>	<b>Vietnam</b>	<b>264.0</b>	<b>169.1</b>	<b>-42.9</b>	<b>9.4</b>	<b>-84.4</b>	<b>-12.0</b>	<b>4.7</b>	<b>4.1</b>	<b>N/A</b>	<b>27.3</b>	<b>1.2</b>	<b>N/A</b>

Source: Bloomberg, VCSC (data as at April 26, 2022)

## Recommendation History

**Figure 90: Recommendation history (VND/share)**


Source: Bloomberg, VCSC (actual price is adjusted for cash dividend)

## Financial Statements for PPC

P&L (VND bn)	2021	2022F	2023F	2024F	B/S (VND bn)	2021	2022F	2023F	2024F
<b>Revenue</b>	<b>3,868</b>	<b>5,827</b>	<b>7,626</b>	<b>9,452</b>	Cash & equivalents	527	436	239	318
COGS	-4,102	-5,757	-7,266	-8,670	ST investment	615	115	115	115
<b>Gross Profit</b>	<b>-234</b>	<b>70</b>	<b>360</b>	<b>782</b>	Accounts receivable	797	1,277	1,671	2,072
Sales & Marketing exp	0	0	0	0	Inventories	501	532	672	802
General & Admin exp	-87	-94	-88	-109	Other current assets	50	258	258	258
<b>Operating Profit</b>	<b>-320</b>	<b>-25</b>	<b>272</b>	<b>673</b>	<b>Total Current assets</b>	<b>2,489</b>	<b>2,618</b>	<b>2,955</b>	<b>3,564</b>
Financial income	452	358	381	340	Fix assets, gross	13,684	13,784	13,834	13,884
Financial expenses	24	0	0	0	- Depreciation	-13,317	-13,345	-13,392	-13,438
- o/w interest expense	0	0	0	0	Fix assets, net	367	439	443	446
Associates	0	0	0	0	LT investment	2,501	2,501	2,501	2,501
Net other income/(loss)	21	0	0	0	LT assets other	91	182	182	182
<b>Profit before Tax</b>	<b>177</b>	<b>334</b>	<b>653</b>	<b>1,013</b>	<b>Total LT assets</b>	<b>2,959</b>	<b>3,122</b>	<b>3,126</b>	<b>3,129</b>
Income Tax	39	-8	-59	-138	<b>Total Assets</b>	<b>5,449</b>	<b>5,740</b>	<b>6,081</b>	<b>6,694</b>
<b>NPAT before MI</b>	<b>216</b>	<b>326</b>	<b>595</b>	<b>875</b>	Accounts payable	522	525	662	790
Minority Interest	0	0	0	0	Short-term debt	0	0	0	0
<b>NPAT less MI, reported</b>	<b>216</b>	<b>326</b>	<b>595</b>	<b>875</b>	Other ST liabilities	73	291	381	473
<b>NPAT less MI, adjusted<sup>(1)</sup></b>	<b>71</b>	<b>326</b>	<b>595</b>	<b>875</b>	<b>Total current liabilities</b>	<b>594</b>	<b>816</b>	<b>1,044</b>	<b>1,263</b>
EBITDA	-262	4	318	719	Long term debt	0	0	0	0
EPS reported, VND	647	974	1,779	2,616	Other LT liabilities	0	0	0	0
EPS adjusted <sup>(1)</sup> , VND	194	974	1,779	2,616	<b>Total Liabilities</b>	<b>594</b>	<b>816</b>	<b>1,044</b>	<b>1,263</b>
EPS fully diluted, VND	194	974	1,779	2,616	Preferred Equity	0	0	0	0
DPS, VND	800	1,500	1,500	2,500	Paid in capital	3,262	3,262	3,262	3,262
DPS/EPS (%)	124%	154%	84%	96%	Share premium	0	0	0	0
(1) Excluding FX gain/loss and one-off delayed FX payments					Retained earnings	1,592	1,661	1,775	2,169
<b>RATIOS</b>	<b>2021</b>	<b>2022F</b>	<b>2023F</b>	<b>2024F</b>	Other equity	0	0	0	0
<b>Growth</b>					Minority interest	0	0	0	0
Revenue growth	-51.2%	50.6%	30.9%	23.9%	<b>Total equity</b>	<b>4,854</b>	<b>4,923</b>	<b>5,037</b>	<b>5,431</b>
Op profit (EBIT) growth	-134.5%	-92.3%	N/M	147.1%	<b>Liabilities &amp; equity</b>	<b>5,449</b>	<b>5,740</b>	<b>6,081</b>	<b>6,694</b>
PBT growth	-85.4%	88.2%	95.7%	55.0%	Y/E shares out, mn	320.6	320.6	320.6	320.6
EPS growth, adjusted	-92.0%	402.8%	82.6%	47.1%	Treasury shares, mn	5.6	5.6	5.6	5.6
<b>Profitability</b>					<b>CASH FLOW (VND bn)</b>	<b>2021</b>	<b>2022F</b>	<b>2023F</b>	<b>2024F</b>
Gross Profit Margin	-6.0%	1.2%	4.7%	8.3%	<b>Beginning Cash Balance</b>	<b>273</b>	<b>527</b>	<b>436</b>	<b>239</b>
Op Profit, (EBIT) Margin	-8.3%	-0.4%	3.6%	7.1%	Net Income	216	326	595	875
EBITDA Margin	-6.8%	0.1%	4.2%	7.6%	Dep, & amortization	59	29	46	46
NPAT-MI Margin, adj,	5.6%	5.6%	7.8%	9.3%	Change in Working Cap	968	-498	-306	-311
ROE	3.8%	6.7%	11.9%	16.7%	Other adjustments	-286	0	0	0
ROA	3.4%	5.8%	10.1%	13.7%	<b>Cash from Operations</b>	<b>957</b>	<b>-143</b>	<b>334</b>	<b>610</b>
<b>Efficiency</b>					Capital Expenditures, net	-3	-100	-50	-50
Days Inventory On Hand	53	33	30	31	Investments, net	920	409	0	0
Days Accts, Receivable	85	85	85	85	<b>Cash from Investments</b>	<b>917</b>	<b>309</b>	<b>-50</b>	<b>-50</b>
Days Accts, Payable	46	33	30	31	Dividends Paid	-1,621	-256	-481	-481
Cash Conversion Days	92	85	85	85	Δ in Share Capital	0	0	0	0
<b>Liquidity</b>					Δ in ST debt	0	0	0	0
Current Ratio x	4.2	3.2	2.8	2.8	Δ in LT debt	0	0	0	0
Quick Ratio x	3.3	2.6	2.2	2.2	Other financing C/F	0	0	0	0
Cash Ratio x	0.9	0.5	0.2	0.3	<b>Cash from Financing</b>	<b>-1,621</b>	<b>-256</b>	<b>-481</b>	<b>-481</b>
Debt / Assets	0.0%	0.0%	0.0%	0.0%	<b>Net Change in Cash</b>	<b>253</b>	<b>-91</b>	<b>-196</b>	<b>79</b>
Debt / Capital	0.0%	0.0%	0.0%	0.0%	<b>Ending Cash Balance</b>	<b>527</b>	<b>436</b>	<b>239</b>	<b>318</b>
Net Debt / Equity	-23.5%	-11.2%	-7.0%	-8.0%					
Interest Coverage x	N/M	N/M	N/M	N/M					

Source: PPC, VCSC. \* Parent company; consolidated financial statement is not available; PPC uses the cost method for HND, not the equity method.



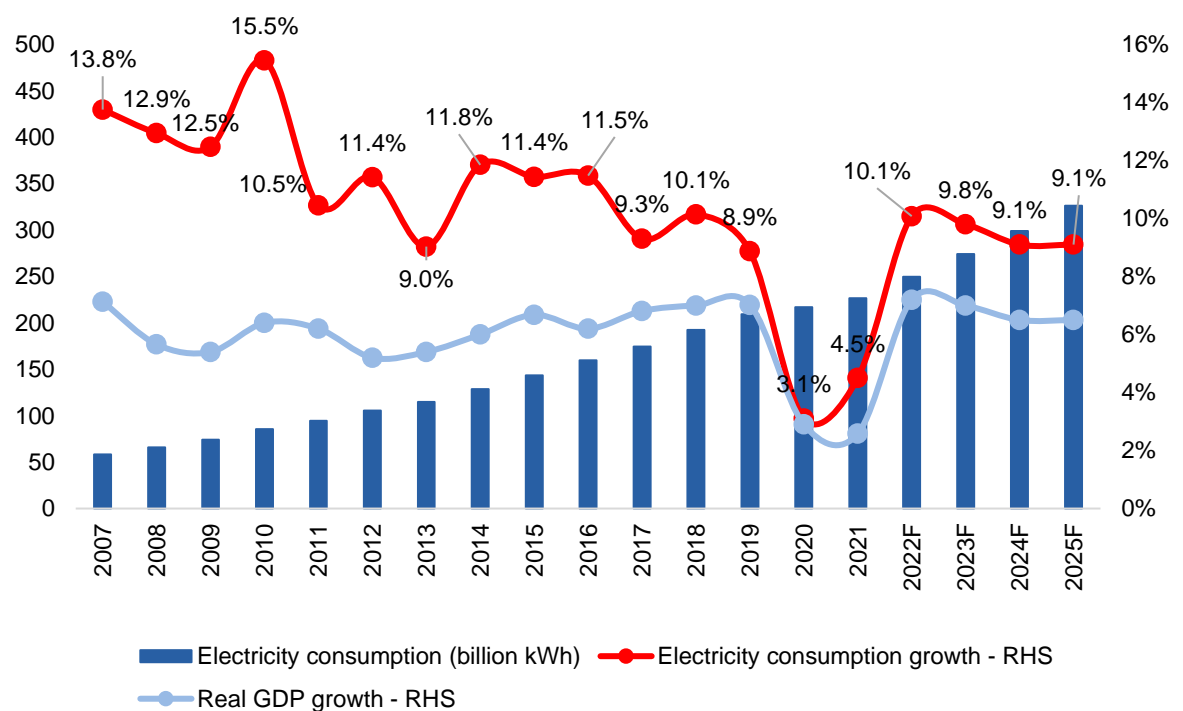
## Appendix: Updated sector assumptions

### We forecast Vietnam's electricity consumption to grow ~10% in 2022

**Vietnam's electricity consumption to grow ~9%-10% per annum in 2022F-2025F.** COVID-19 remains a source of uncertainty in macro forecasting; however, our base-case scenario continues to be that the global economy — along with Vietnam — will continue to recover progressively from the disruptions of COVID-19. As such, we assume that Vietnam's GDP growth rate will return to the pre-COVID-19 level of around 6%-8% in 2022F-2025F. Using our assumption for Vietnam's energy elasticity of 1.4-1.5, we estimate that Vietnam is likely to see electricity consumption growth of 9%-10% per annum in 2022-2025.

We forecast electricity consumption to rebound ~10% to 250 billion kWh in 2022F from a low base in 2021.

**Figure 10: Vietnam's historical and forecast electricity consumption growth vs GDP growth**



Source: EVN, VCSC forecast

### 4,000 MW of wind power that will come online later than expected and a coal shortage will add to the power shortage in northern Vietnam, leading to a possibly tighter national supply in 2023F

Previously, we expected the remaining 4,000 MW of wind power that missed the October 2021 deadline to receive a favorable tariff would come online throughout 2022. However, this 4,000 MW of wind power is still waiting for a new pricing mechanism; therefore, this capacity could take a while to come online.

This situation adds further to northern Vietnam's power shortage that has occurred since Q4 2021 due to low reservoir levels at hydropower plants in the region. According to industry players, the recent coal shortage is likely to prolong into future quarters, which will also add to the North's electricity shortage. As far as we understand, southern and central Vietnam still have enough electricity.

Industry players expect some national electricity shortages in 2023, which is mainly due to potential capacity growth of ~5% in 2023 compared to 10%-20% over the past three years.


**Figure 11: VCSC's forecast of Vietnam's power generation capacity (MW)**

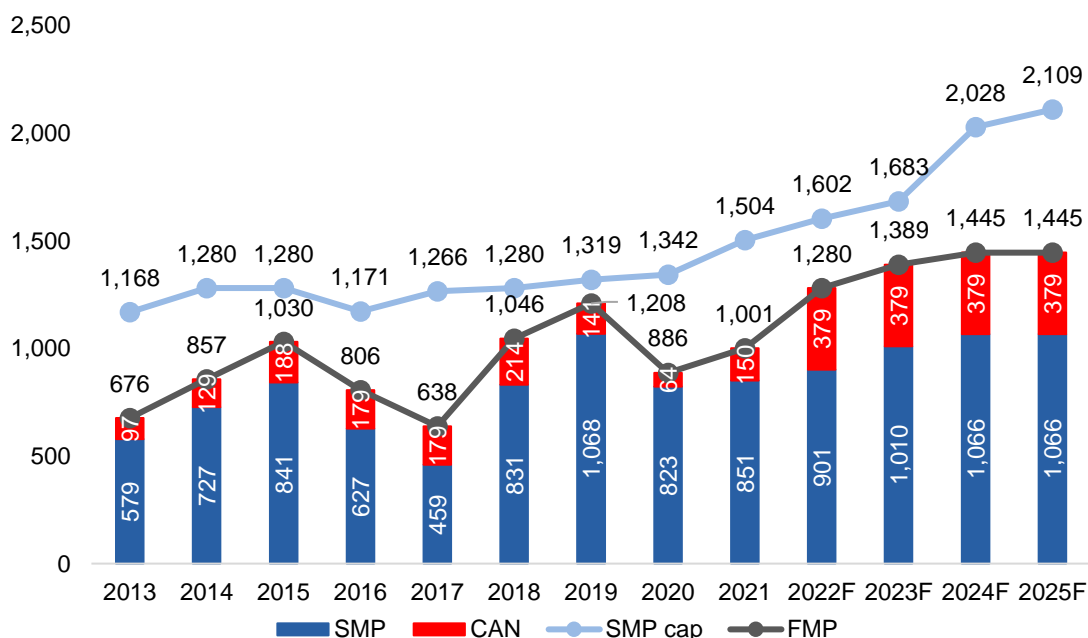
MW	2020	2021F	2022F	2023F
Hydropower	20,774	21,269	22,269	22,769
Coal-fired power	21,554	23,954	25,754	26,954
Gas-fired power	8,858	8,858	8,858	8,858
Solar power (farm)	8,871	8,871	8,871	8,871
Solar power (rooftop)	7,785	9,535	9,535	10,535
Wind power	518	4,518	8,518	10,018
Others	937	937	937	937
<b>Total capacity</b>	<b>69,297</b>	<b>77,942</b>	<b>84,742</b>	<b>88,942</b>
YoY growth	22.5%	12.5%	8.7%	5.0%

Source: EVN, Ministry of Industry and Trade (MoIT), VCSC forecast

### We expect CGM prices to increase 28% in 2022

Given our expectation for a strong recovery in electricity consumption in 2022F, high gas and coal prices, and an electricity shortage in the North, we assume the average CGM price will increase to VND1,280/kWh for 2022. For the long term, we assume CGM prices will increase at an average of ~5% p.a. in 2023-2025F due to growth in demand and higher gas prices.

Per EVNGENCO3 (UPCoM: PGV), the monthly CGM price in March 2022 surged to VND1,761/kWh (+37% YoY). In Q1 2022, the average CGM price was VND1,522 (+38% YoY). As a result, we increase our average CGM price assumption from VND1,208/kWh to VND1,280 (+28% YoY) for 2022.

**Figure 12: CGM (also known as FMP) price outlook (VND/kWh)**


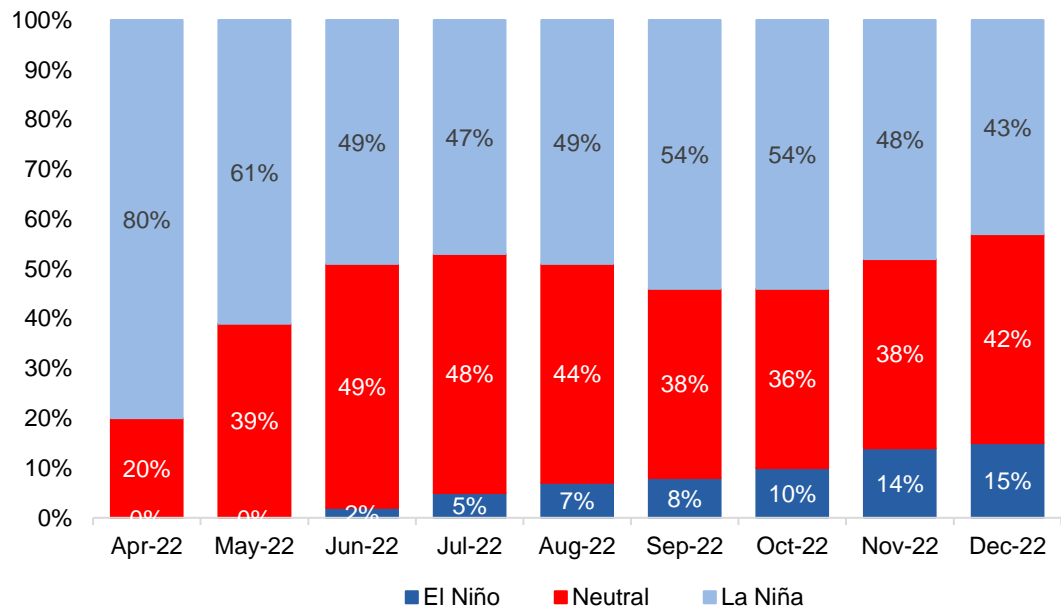
Source: EVN, MoIT, VCSC estimates. FMP = full market price.

Note: CGM/FMP = SMP + CAN; SMP: the highest auction price needed to be employed in order to balance with the system supply/demand; CAN: the extra price paid for the best new entrant power plant to break even.

## Weather forecast suggests slight probability of La Niña for 2022

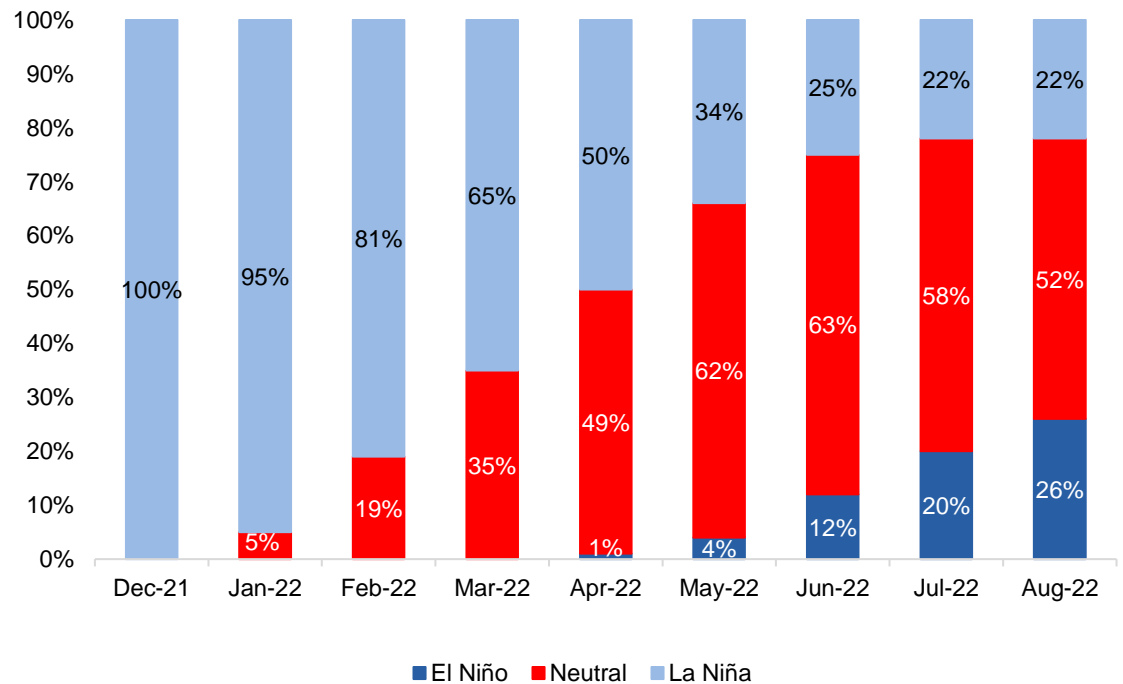
The weather forecast illustrated in **Figure 13** (as of April 2022) predicts that the probability of La Niña (heavy rainfall in Vietnam) ranges from 50%-80% in April – August 2022 compared to 20%-50% forecast as of December 2021 (**Figure 14**).

**Figure 13: Probability of weather conditions as of April 2022**



Source: International Research Institute for Climate and Society, VCSC

**Figure 14: Probability of weather conditions as of December 2021**



Source: International Research Institute for Climate and Society, VCSC

## Coal price outlook

Please see our [Energy Sector Report – Russia – Ukraine conflict to support high oil price](#), dated April 8, 2022, for more details.

**Figure 15: Forecast of average prices of 5a domestic coal and its mixed coal equivalent**

VND mn/tonne	2021	2022F	2023F	2024F	2025F	2026F
Domestic coal, 5a (5,500 kcal/kg)	1,845	1,937	2,034	2,136	2,243	2,355
YoY growth	0%	5%	5%	5%	5%	5%
<b>Mixed coal, 5a equivalent</b>	<b>2,053</b>	<b>2,372</b>	<b>2,396</b>	<b>2,308</b>	<b>2,179</b>	<b>2,212</b>
YoY growth		16%	1%	-4%	-6%	2%
Revised vs previous	N/A	17%	21%	13%	4%	2%
Mixed coal, 5a equivalent (USD/tonne)	89	103	104	100	94	94

Source: MoIT, Bloomberg consensus, VCSC forecasts (delivery price includes import transportation tariffs, logistics costs and VAT for imported coal that is used to mix with domestic coal).

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OUTPERFORM	If the projected TSR is between 10% and 20%
MARKET PERFORM	If the projected TSR is between -10% and 10%
UNDERPERFORM	If the projected TSR is between -10% and -20%
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