


Pha Lai Thermal Power Joint Stock Company (PPC) [BUY +31.6%]
Update Report
Industry: Utilities
Report Date February 12, 2020

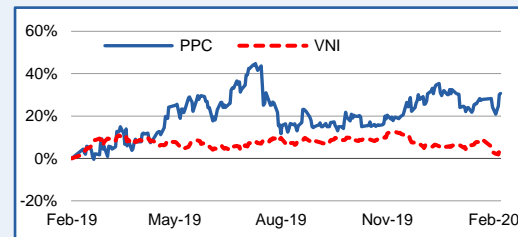
Current Price	VND26,600
Current Target Price	VND32,000
Last Target Price	VND29,300
Upside to TP	20.3%
Dividend Yield	11.3%
TSR	31.6%

Market Cap	USD376mn
Foreign Room	USD125mn
ADTV30D	USD200,000
State Ownership	51%
Outstanding Shares	320.6 mn
Fully Diluted Shares	326.2 mn

	2019	2020F	2021F	2022F
Rev Y/Y	15.0%	0.2%	2.0%	2.0%
EPS Y/Y ¹	0.1%	1.0%	4.4%	0.4%
EPS Y/Y ²	12.7%	-20.3%	4.4%	0.4%
EV/EBITDA	6.0x	7.8x	7.7x	8.1x
P/E ¹	8.7x	8.6x	8.2x	8.2x
P/E ²	6.9x	8.6x	8.2x	8.2x
P/E ³	6.2x	7.6x	8.3x	8.3x

	PPC	Peers	VNI
P/E (ttm)	8.7x	10.6x	16.5x
P/B (curr)	1.5x	1.2x	2.2x
Net D/E	-0.2	0.4	N/A
ROE	16.4%	9.0%	13.5%
ROA	13.4%	3.7%	2.2%

(1) Adjusted EPS, excluding forex translation loss, (2) Reported EPS, including forex translation loss, (3) Consolidated EPS


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 25% and 16% stakes in the Hai Phong (HND/1,200 MW) and Quang Ninh (QTP/1,200 MW) coal-fired power plants, respectively.

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Stellar results of HND reconfirm PPC's sustainable yield

- We maintain a BUY rating and raise our target price by 9.2% to VND32,000/share due to (1) our higher 2020-2029 NPAT-MI forecast and (2) higher target P/E (see more on **page 7**).
- We raise our 2020F adjusted NPAT by 12.2% and increase our 2021-2029 NPAT forecast by an average of 6.5%, which is driven by our assumptions of a higher sales volume and 25% higher dividend receipts from the Hai Phong coal-fired power plant (HSX: HND).
- We maintain our 2019 cash dividend assumption of VND2,700/share (10.2% yield), but we revise up our cash dividend assumption for 2020 by 11.3% to VND3,000/share (11.3% yield).
- PPC is the most experienced company (35 years) in our power coverage while also having the strongest financial capacity and highest dividend yield. Additionally, PPC has a foreseeable capacity expansion from Pha Lai 3 (potential capacity of 600 MW).
- Key downside risk: lower sales volume if the coronavirus (CoV) outbreak continues longer than our assumption; unexpected technical shutdown.
- PPC is trading at an attractive valuation with a 2020F projected EV/EBITDA of 7.8x (a 25% discount vs regional peers) while offering a sustainable yield of 11.3%, per our forecasts.

Electricity shortage suggests solid volume growth in 2020 despite CoV threat. As the National Load & Despatch Center's (NLDC) 2020 production volume guidance for PPC surpassed our expectation, we thus raise our volume assumption for PPC by 2.4% to 5.8 billion kWh (+3.3% YoY). We assume the CoV issue will fade by end-Q1 with most economic activity gradually normalizing during Q2 2020. In our view, PPC and HND will continue to have sales volume growth in Q1 2020 as most of hydropower plants are running out of water storage (vs a high base in Q1 2019).

We raise HND's 2019 and 2020 cash dividend by 25% after its strong results in 2019. We revise up our NPAT forecast for HND in 2020 by 55.8% to VND1.3tn (USD57.5mn, +9.7% YoY) due to a ~10% increase in volume following 2019 NPAT beating our forecast by 51.7%. As a result, we raise HND's 2019 cash dividend by 33% to VND1,000/share and 2020's cash dividend by 17.6%. We expect DPS from HND will gradually increase to VND2,000/share in 2022.

We have revised our target P/E for PPC to be based on 'power holding company peers' instead of 'single power plant peers' as previously. This change is due to: (1) PPC's associate companies (HND and QTP) having a more significant dividend contribution to PPC from 2020; and (2) PPC having a potential capacity expansion at Pha Lai 3 (600 MW), which differentiates it from single-plant power producers (which usually have constraints on capacity expansion).

2019 recap: 2019 NPAT exceeded our expectation

Figure 1: PPC's 2019 results

VND bn	Q4 2019	YoY	2019	YoY	% of VCSC's 2019F	Note
Sales volume (million kWh)	1,592	20.0%	5,574	9.5%	103.3%	Strong Q4 2019 sales volume growth was driven by a water shortage at hydropower plants, which surpassed our expectation.
Pha Lai 1 (million kWh)	606	36.7%	1,957	11.3%	103.7%	
Pha Lai 2 (million kWh)	986	11.6%	3,617	8.5%	103.0%	
ASP (VND/kWh)	1,428	3.0%	1,449	3.6%	96.7%	
Revenue	2,274	23.6%	8,183	15.0%	101.1%	
Adjusted revenue	2,155	17.1%	7,944	11.6%	99.6%	
COGS	-1,760	22.1%	-6,896	15.5%	97.5%	
Gross profit	514	29.1%	1,287	12.2%	126.2%	
Adjusted gross profit	395	-0.8%	1,048	-8.7%	116.4%	
SG&A	-25	-8.2%	-75	-15.9%	76.9%	
Operating profit (EBIT)	489	31.9%	1,212	14.5%	131.3%	
Financial income	112	76.8%	310	24.5%	119.3%	
Financial expense	-15	-71.7%	15	-87.2%	-69.1%	
Interest expense	-2	-63.5%	-12	-50.0%	76.9%	
FX translation loss	4	n/m	0	n/m	n/m	
QTP's provision	-17	-34.9%	33	-81.8%	n/m	
Net other income	5	n/m	0	n/m	n/m	
PBT	591	62.5%	1,537	9.2%	132.3%	
Income tax exp	-99	14.3%	-272	-4.8%	130.3%	
Reported NPAT	492	77.6%	1,265	12.7%	132.8%	<p>2019 reported NPAT increased by 12.7% YoY to VND1.3tn (USD54.5mn), which was mainly due to a deferred receipt for 2016 and 2017's realized forex loss of VND239bn (USD10.3mn) that outpaced a lower provision write-back for the Quang Ninh coal-fired power plant (UPCoM: QTP).</p> <p>2019's reported earnings surpassed our forecast, mainly due to (1) an unexpected deferred receipt for 2017's realized forex loss of VND119bn (USD5.1mn) in Q4 2019; and (2) a higher-than-expected provision write-back of VND33bn (USD1.4mn) for QTP vs no provision write-back in our forecast.</p>
Adjusted NPAT	446	37.8%	999	0.1%	119.2%	<p>Sales volume growth of 9.5% compensated for higher coal prices.</p> <p>2019's adjusted earnings surpassed our forecast, mainly due (1) 2019 sales volume surpassing our projection by 3.3%; (2) an unexpected interim cash dividend from HND in December 2019.</p>

Source: PPC, VCSC

2020 outlook: Sales volume growth to compensate for lower selling prices

Figure 2: PPC's 2020 outlook

VND bn	2019F	2020F New	2020F New vs Old	2020F vs 2019F	Explanation for: (1) New vs old forecast (2) 2020F vs 2019F
Sales volume (mn kWh)	5,489	5,672	2.4%	3.3%	(2) We assume solid sales volume growth on the back of a confirmed electricity shortage outlook.
Pha Lai 1 (mn kWh)	1,924	1,969	1.8%	2.3%	
Pha Lai 2 (mn kWh)	3,565	3,703	2.7%	3.9%	
PPC's ASP (VND/kWh)	1,491	1,446	-1.9%	-3.0%	(1) We lower our CGM price assumption by 2% given EVN's CAN price decline of 55%.
Coal price (VND mn/tons)	1.9	1.9	0.0%	0.4%	
Revenue	8,183	8,202	0.4%	0.2%	
Adjusted revenue	8,063	8,202	0.4%	1.7%	
COGS	-6,896	-7,210	1.2%	4.6%	
Gross profit	1,287	992	-5.0%	-22.9%	
Adjusted gross profit	1,167	992	-5.0%	-15.0%	
SG&A	-75	-94	-3.6%	26.4%	
Operating profit (EBIT)	1,212	897	-5.1%	-26.0%	
Financial income	310	317	19.7%	2.0%	(1) Mainly due to higher dividend assumption from HND.
Financial expense	15	0	902.9%	-102.4%	
Interest expense	-12	0			
Net other income	0	0			
PBT	1,537	1,213	0.3%	-21.0%	
Income tax exp	-272	-205	-2.7%	-24.6%	
Reported NPAT	1,265	1,008	0.9%	-20.3%	(2) We assume that PPC does not have deferred receipts for previous years' realized forex losses in 2020 vs a high base in 2019 of VND239bn (USD10.3mn)
Adjusted NPAT	999	1,008	12.2%	1.0%	(1) Due to our higher sales volume and higher cash dividend from HND assumptions. (2) Sales volume growth to compensate for Pha Lai 1's lower PPA and CGM prices.

Source: VCSC forecast

HND and QTP to contribute higher cash dividends for PPC in coming years

As Vietnam's hydropower sales volume declined by ~20% in 2019, EVN experienced maximized utilization from all coal-fired power plants. As a result, HND's sales volume in 2019 grew 16.6% YoY to 7.4 billion kWh (10.4% higher than our forecast). This increase led HND's adjusted NPAT to jump 31.4% YoY to VND1.2tn (USD52.4mn), surpassing our forecast by 51.7%.

For 2020, we raise our sales volume assumptions for HND by 13% to 7.5 billion kWh (+1.0 % YoY) as the National Load & Despatch Center's (NLDC) 2020 production volume guidance for HND has significantly surpassed our expectation. Therefore, we revise up our NPAT forecast by 55.8% to VND1.3tn (USD57.5mn, +9.7% YoY) for HND in 2020.

Figure 3: HND's 2020 outlook

VND bn	2019	2019 vs 2018	2020F	2020 vs 2019F	Note
Revenue	11,301	18.6%	11,423	1.1%	
- Cost of goods sold	-9,525	20.1%	-9,684	1.7%	
Gross profit	1,777	11.1%	1,739	-2.1%	
- SG&A	-150	-10.6%	-123	-17.9%	
Operating profit (EBIT)	1,626	13.7%	1,616	-0.6%	
- Financial income	34	40.8%	63	87.5%	
- Financial expense	-397	-60.2%	-403	1.4%	
<i>In which, interest expense</i>	-383	-23.9%	-281	-26.5%	
<i>In which, forex loss</i>	-14	-97.2%	-121	764.1%	
PBT	1,265	177.6%	1,277	0.9%	
Reported NPAT	1,203	178.7%	1,213	0.8%	Strong reported NPAT growth in 2019 was due to lower forex losses of VND14bn/USD0.6mn in 2019 vs a high base of VND494bn/USD21.3mn in 2018. 2020 adjusted NPAT growth is driven by sales volume growth of 1% and lower interest expenses.
Adjusted NPAT	1,216	31.4%	1,334	9.7%	
Dividend per share (VND/share)	1,000		1,000		
Reported P/E (x)	6.9		6.9		
Adjusted P/E (x)	6.9		6.3		
EV/EBITDA (x)	3.8		3.0		

Source: HND, VCSC forecast

Figure 4: QTP's 2020 outlook

VND bn	2019	2019 vs 2018	2020F	2020 vs 2019F	Note
Revenue	10,127	12.3%	10,266	1.4%	
- Cost of goods sold	-8,853	13.3%	-9,003	1.7%	
Gross profit	1,273	5.8%	1,263	-0.8%	
- SG&A	-72	0.1%	-72	0.0%	
Operating profit (EBIT)	1,201	6.2%	1,190	-0.9%	
- Financial income	27	645.0%	27	0.0%	
- Financial expense	-561	-34.5%	-433	-22.7%	
<i>In which, interest expense</i>	-431	-24.3%	-379	-12.0%	
<i>In which, forex loss</i>	-60	-78.9%	-55	-9.8%	
PBT	653	137.2%	745	14.0%	
Reported NPAT	653	137.2%	745	14.0%	Strong reported NPAT growth in 2019 was due to lower forex losses of VND60bn/USD2.6mn in 2019 vs a high base 2018 of VND287bn/USD12.4mn. 2020 adjusted NPAT growth is driven by sales volume growth and lower interest expenses.
Adjusted NPAT	783	39.0%	799	2.1%	
Dividend per share (VND/share)	0		500		
Reported P/E	16.2		14.2		
Adjusted P/E	13.2		12.9		
EV/EBITDA	4.7		4.0		

Source: HND, VCSC forecast

Valuation

We continue to apply three valuation methods – DCF, P/E and EV/EBITDA – and derive a blended valuation for PPC using weights of 50%, 25% and 25%, respectively.

However, we change the basis for our target P/E from 'single power plant' peers to 'power holding company' peers given (1) PPC's associate companies having a more significant dividend contribution to PPC from 2020; and (2) PPC having potential capacity expansion at Pha Lai 3 (600 MW).

- 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.
- EV/EBITDA: This method shows the value of a company independent of its gearing structure.
- Reported P/E: We use reported EPS to value PPC; however, we note that as power plants have debt denominated in foreign currency, they suffer forex translation/accounting losses from revaluing the remaining loan balance with the current exchange rate every year when the VND depreciates vs foreign currencies (usually USD). Therefore, there is a difference between reported EPS (including forex translation loss) and adjusted EPS (excluding forex translation loss). The **realized forex loss** for the principal payment that the power plant pays in a year is **100% passed through to buyers**.
- We set target multiples based on median P/E and EV/EBITDA over the past four years for regional peers, including power holding companies and single power plants.
- We apply a **15% discount to our blended valuation to set our target price**, so it reflects 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 revise up our target price by 9.2% from VND29,300/share to VND32,000/share, driven by:

- Our DCF valuation increasing by 3.5% given our higher 2020F-2029F adjusted earnings forecast.
- Our EV/EBITDA valuation increasing by 4.3% due to our higher EBITDA forecast while target EV/EBITDA remains unchanged.
- Our P/E valuation has increased 32.3% given our higher earnings forecast and higher target P/E of 11.8x vs our previous target P/E of 9.0x (please see our explanation on **page 7**).
- We note that our target P/E and EV/EBITDA are based on the four-year median of our 'power holding company' peers from February 2016 – February 2019.

Figure 5: PPC's valuation (VND/share)

Method	Target multiple	EPS	Fair value	Weight	Target price
DCF			40,147	50%	20,073
EV/EBITDA	10.4x		34,206	25%	8,551
P/E reported	11.8x	3,091	36,477	25%	9,119
Fair value					37,700
Discount for sector's limited transparency				15%	
Target price					32,000
Upside %					20.3%
Dividend yield %					11.3%
TSR %					31.6%
2020 Reported P/E at TP					10.4x
2020 Adjusted P/E at TP					10.4x
2020 Consolidated P/E at TP (using equity account for 26% stake in HND).					9.1x
Dividend yield at TP %					9.4%

Source: VCSC forecast

Discounted Cash Flow

We use a terminal growth rate of 2% to capture the growth potential from Pha Lai 3 (600MW). The Pha Lai 3 project has received approval from the People's Committee of Hai Duong Province People and is expected to be added in the Power Master Plan VIII in 2020-2021 before breaking ground in 2022-2023.

Figure 6: DCF valuation

Cost of Capital	Previous Report	Revised	FCFF (Ten Year)	(VND bn)
Beta	0.9	0.9	PV of Free Cash Flows	6,800
Market Risk Premium %	8.7%	8.7%	PV of Terminal Val (2% g)	4,726
Risk Free Rate %	4.5%	4.5%	PV of FCF and TV	11,527
Cost of Equity %	12.3%	12.3%	+ Cash & ST investments	1,571
Cost of Debt %	8.0%	8.0%	- Debt	0
Debt %	17.4%	17.4%	- Minority Interest	0
Equity %	82.6%	82.6%	Equity Value	13,097
Corporate Tax Rate %	20.0%	20.0%	Shares (millions)	326
WACC %	11.3%	11.3%	Price per share, VND	40,147

Source: VCSC

Figure 7: Cash flows (VND bn)

(VND bn)	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F
EBIT	1,086	1,138	1,130	1,172	1,289	1,363	1,340	1,340	1,303	1,375
+ Depreciation	46	56	56	56	44	10	0	0	0	0
- Tax	-205	-200	-192	-193	-204	-221	-218	-220	-216	-233
- Working cap increase	148	-28	-29	-30	-28	-29	-26	-27	-27	115
- Capex	-50	-50	-50	-50	-50	-50	-50	0	0	0
Free Cash Flow	1,025	916	916	956	1,051	1,073	1,045	1,093	1,060	1,257
Present Value of FCF	921	740	665	623	616	628	612	640	621	736
Cumulative PV of FCF	921	1,660	2,325	2,948	3,563	4,192	4,804	5,444	6,064	6,800

Source: VCSC

EV/EBITDA valuation

Figure 8: EV/EBITDA valuation

EV/EBITDA valuation	(VND bn)
EBITDA	943
Target EV/EBITDA (x)	10.4
Enterprise value	9,812
Plus cash	1,347
Minus debt	0
Minus minorities	0
Derived market cap	11,159
Number of shares (millions)	326
Fair value per share (VND/share)	34,206

Source: VCSC forecast



Peer Multiples

We have selected regional peers, including power holding companies that are consolidated or own stakes in several power plants, in addition to single power plants in Asia. All of these companies are power generators, but they are not exactly similar to PPC due to differences in power type, capacity and market mechanisms. However, we have selectively picked peers based on market capitalization, capacity, revenue and NPAT size. As EV/EBITDA and P/E move in a wide range, we have used median ratios over the past four years to set the target multiples.

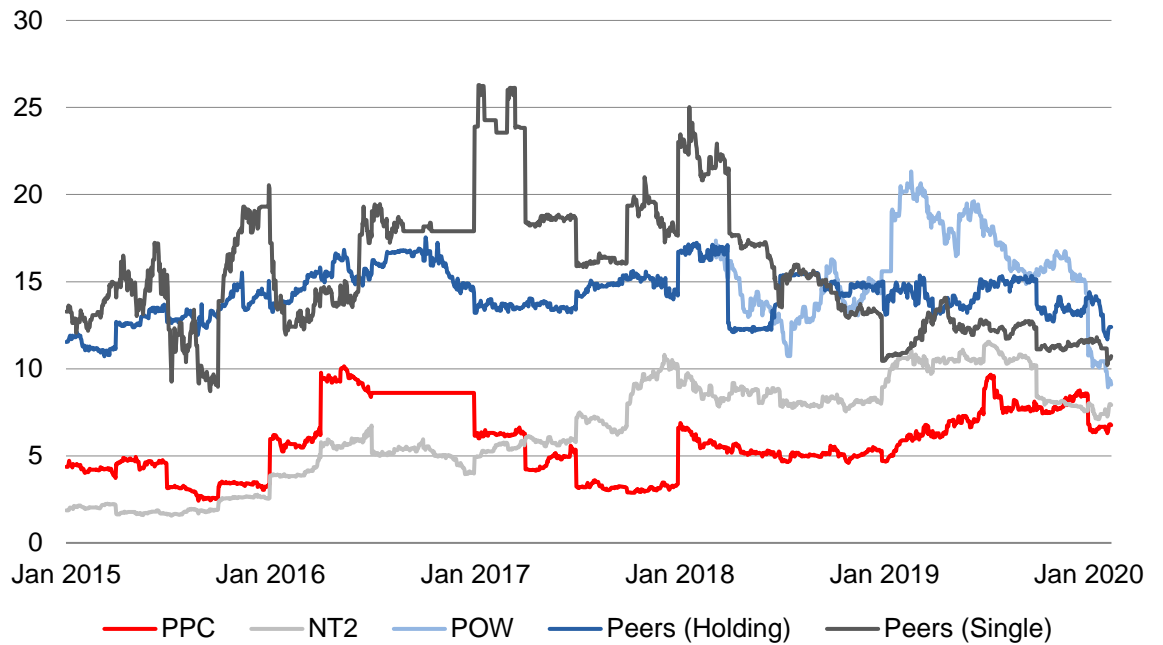
- The historical four-year median P/E ratio of power holding company peers is 14.8x. Historically, PPC's average four-year P/E is a ~60% discount compared to its peers, which is possibly due to three reasons: 1) PPC suffered huge forex translation losses related to its JPY-denominated debt; 2) associated companies (HND and QTP) have not yet paid significant dividends; and 3) limited transparency.
- Things now have changed. *Firstly*, PPC has now become a net cash company. *Secondly*, HND and QTP dividend are rising significantly as their operations have become smoother while their debts have been reduced substantially. Therefore, we expect that PPC's P/E should expand and apply 20% discount for the limited transparency issue — setting a target P/E of 11.8x for PPC.
- We have benchmarked the holding peers' four-year median EV/EBITDA of 10.4x to set a target multiple for PPC.

Figure 9: Peers

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)	TTM PBR (x)	EV/ EBITDA (x)
POWER HOLDING COMPANIES													
Manila Electric	Philippines	6,396	6,081	7.6	437	2.0	-30.1	7.0	29.3	5.6	14.1	3.9	11.1
First Philip Hld	Philippines	669	2,560	13.4	195	52.7	66.1	3.4	13.0	3.0	2.8	0.3	5.1
Energy Developme	Philippines	n/a	699	8.9	153	-8.2	89.8	4.7	11.3				8.6
Ratchaburi Elec	Thailand	3,003	1,197	-8.4	173	8.6	32.1	6.0	10.2	3.7	15.6	1.6	21.1
Banpu Power Pcl	Thailand	1,513	196	-1.5	118	-8.2	15.0	7.7	9.6	4.2	12.4	1.2	400.8
Global Power Syn	Thailand	7,012	1,709	126.8	104	-5.4	29.7	2.1	10.1	1.5	37.2	4.2	18.6
Glow Energy Pcl	Thailand	n/a	1,631	-1.5	259	-10.2	44.7	7.1	16.0	1.5	n/a	n/a	9.7
Nava Bharat Vent	India	182	444	32.1	51	50.2	65.4	4.2	9.9	2.0	3.4	0.3	3.8
Tata Power Co	India	2,197	4,229	10.1	313	-9.0	233.3	2.6	12.0	2.2	7.1	0.9	10.6
Cikarang Listrin	Indonesia	972	588	2.8	79	9.5	48.5	7.4	14.9	8.0	10.0	1.5	6.0
Ytl Power Intl	Malaysia	1,317	2,869	9.8	116	-31.9	137.2	0.9	3.3	7.0	13.0	0.4	9.3
Malakoff Corp Bh	Malaysia	1,021	1,817	4.4	68	28.6	151.6	1.0	4.7	6.9	14.7	0.7	6.7
Mmc Corp Bhd	Malaysia	647	1,250	11.1	55	75.0	88.0	1.2	3.3	4.5	8.7	0.3	10.2
K-Electric Ltd	Pakistan	754	1,978	18.1	112	18.2	34.6	2.8	6.3	n/a	9.5	0.6	7.2
PetroVietnam Power	Vietnam	999	1,525	8.4	107	29.6	61.5	3.2	7.8	n/a	9.3	0.9	7.4
Median		1,021	1,631	8.9	116	8.6	61.5	3.4	10.1	4.0	10.0	0.9	9.3
SINGLE POWER PLANTS													
Sahacogen Chonbu	Thailand	116	138	6.4	7	-24.3	135.6	2.4	6.5	3.2	22.3	1.4	8.6
Vivant Corp	Philippines	283	66	53.1	33	49.5	-7.3	12.9	18.6	2.4	6.1	1.1	n/a
Phinma Energy Co	Philippines	n/a	287	-7.7	-11	-326.0	67.8	-4.3	-9.0	n/a	n/a	n/a	n/a
Guangzhou Heng-A	China	581	438	-3.4	12	226.4	44.9	3.7	9.0	3.5	11.5	1.0	9.6
Gepic Energy D-A	China	614	345	2.6	73	-7.3	190.7	2.5	7.7	3.4	8.8	0.7	9.3
Yunnan Wenshan-A	China	484	308	3.7	45	33.0	4.2	12.3	16.6	2.8	9.7	1.5	5.7
Guizhou Qianyu-A	China	594	336	5.7	56	34.6	227.0	2.2	13.4	2.2	11.5	1.5	8.8
Guangzhou Heng-A	China	581	438	-3.4	12	226.4	44.9	3.7	9.0	3.5	11.5	1.0	9.6
Nhon Trach 2	Vietnam	255	330	-0.2	33	-2.9	28.8	9.3	19.1	4.9	8.0	1.4	4.7
Median		532	330	2.6	33	33.0	44.9	3.7	9.0	3.3	10.6	1.2	8.8
Pha Lai (*)	Vietnam	372	352	15.0	55	12.9	-14.0	13.5	17.2	11.1	6.8	1.4	6.6

Source: Bloomberg; PPC's ratios are based on adjusted earnings

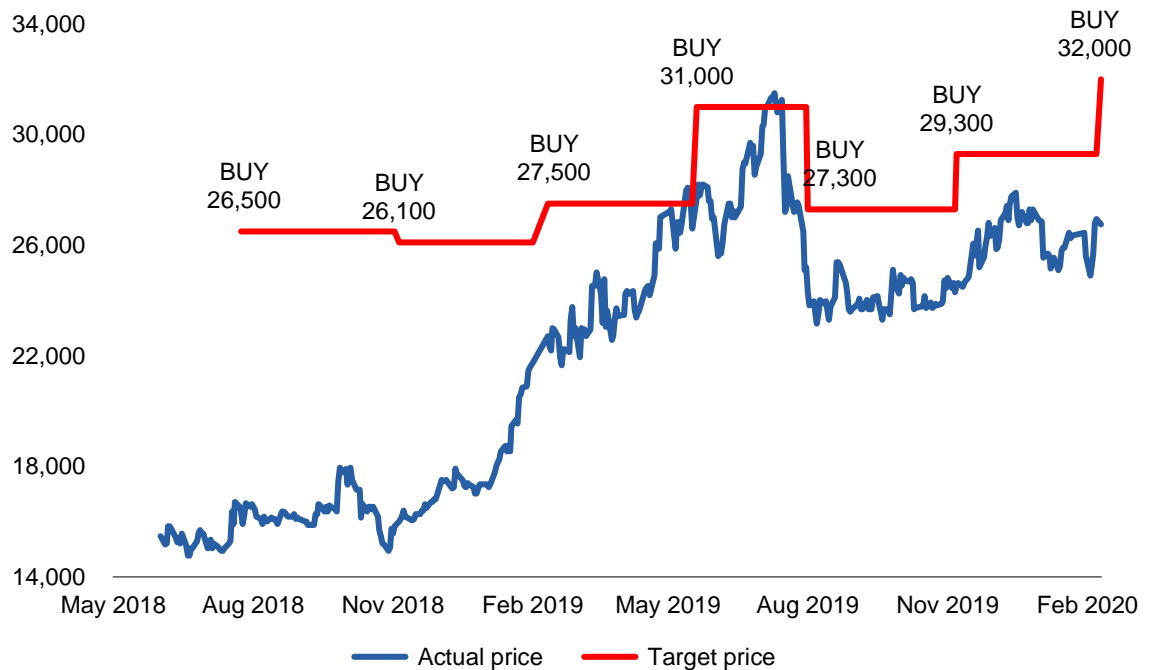
Figure 10: Historical median trailing P/E on reported earnings of PPC vs peers (x)



Source: Bloomberg

Recommendation history

Figure 11: Recommendation history (VND per share)



Source: Bloomberg & VCSC; actual price is adjusted for cash dividend

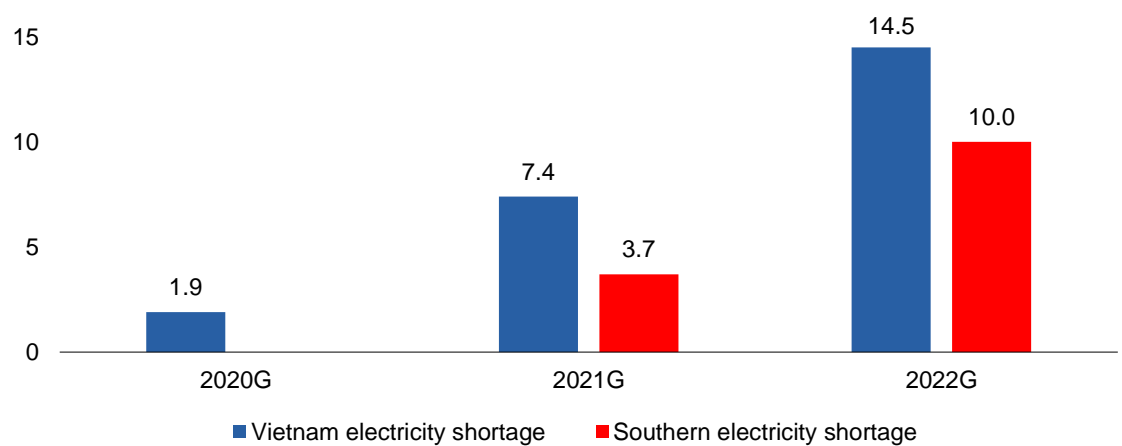


Appendix:

Worsening electricity shortage to become more visible when capacity growth is unlikely to capture rising demand

With the imbalance between power capacity and electricity consumption growth, in November 2019, Ministry of Industry & Trade has confirmed an electricity shortage in 2020 of ~two billion kWh (0.5% of total electricity consumption demand). The shortage will more than triple to 7.4 billion kWh in 2021 before jumping to 14.5 billion kWh in 2022 (4.5% of total electricity consumption demand). In particular, EVN has estimated an electricity shortage in the South of Vietnam of 3.7 billion kWh in 2021 and 10 billion kWh in 2022; this shortage would strongly benefit NT2 as this gas-fired is located in a key economic zone in southern Vietnam that consumes the most electricity in the country. The worsening electricity shortage outlook could benefit all power plants in our coverage (especially thermal plants like PPC, NT2 and those of POW) as it could allow these plants to run at their at maximum available capacities.

Figure 12: Vietnam and southern Vietnam's electricity shortage outlook (bn kWh)



Source: MoIT, EVN

Mixed coal vs domestic coal

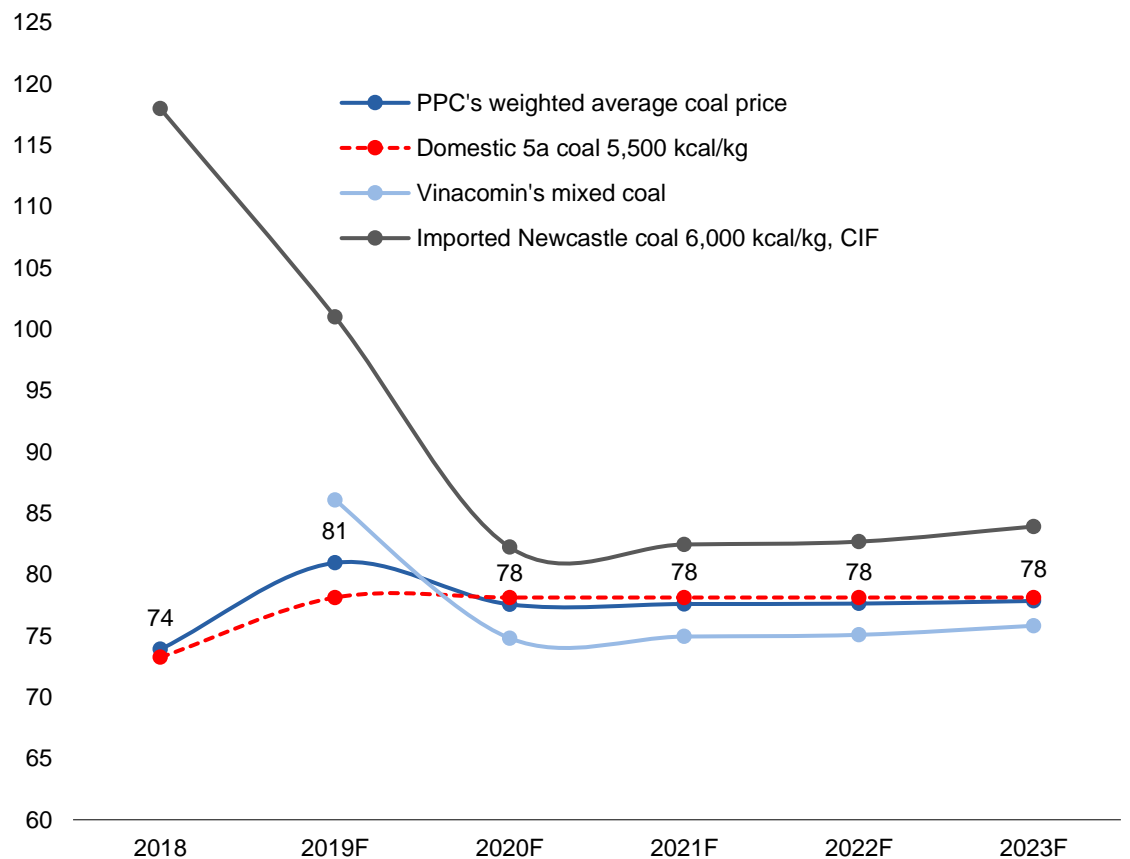
Domestic coal: Anthracite coal 5a and 5b (typically used for most of power plants in Vietnam); supplied by Vietnam National Coal and Mineral Industries Group (Vinacomin) and Dong Bac Coal Corporation (Ministry of Defense).

Mixed coal: Given the lack of domestic coal supply, Vinacomin imports Anthracite coal (which has a calorific of 6,000 kcal/kg) from Newcastle, Australia to mix with Vietnam's domestic 6a coal (which has a calorific of 4,800 kcal/kg). This mixed coal (which has a calorific of 5,500 kcal/kg) is similar to Vietnam's domestic coals 5a and 5b. We estimate the mixing weight is ~60%:40% for Newcastle coal and domestic 6a coal, respectively.

PPC's coal volume: Since March 2019, PPC has used mixed coal (~one million tons for 2019), which accounts for 30% of its total coal consumption. As there is huge demand for 2020, PPC could increase its use of mixed coal from one million to 1.5 million tons in 2020.

PPC's coal price and mixed coal price risk. According to REE (PPC's second largest shareholder) and PPC, coal suppliers offer a domestic coal price of ~VND1.9mn/ton and a mixed coal price of ~VND2.1mn/ton. *Previously, EVN agreed to pay VND2.1mn/ton for one million tons of mixed coal while assuming the remaining 500,000 tons to be at a temporary price of VND1.9mn/ton for 2020; this causes a VND200,000/ton difference that could lower PPC's 2020 revenue and profit by VND200bn (USD8.7mn, 20% of PPC 2020's earnings). PPC's management has confirmed this conflict was resolved with EVN agreeing to pay in full.*

Figure 13: Coal price comparison and forecast (USD/ton)

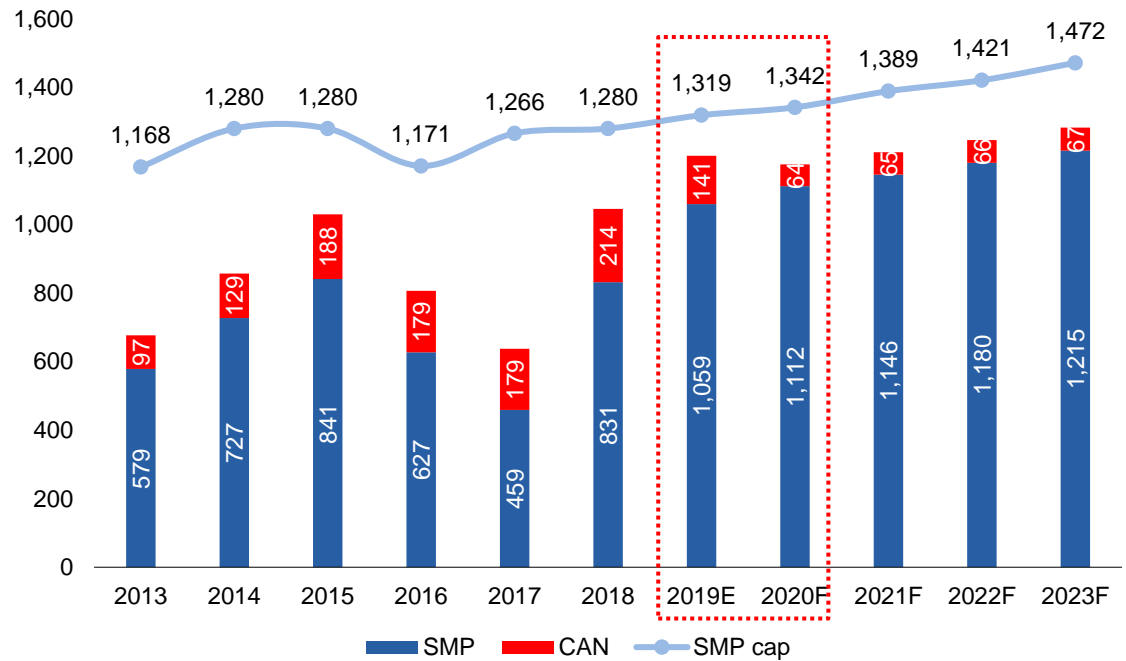


Source: MOIT, Bloomberg, VCSC forecast

We expect CGM prices to be lower in 2020 before increasing over the following years

Based on our discussions with industry players, we assume that CGM prices will be 2% lower in 2020 after a ~15% YoY increase in 2019 as ~55% lower CAN prices outweigh ~5% in higher system marginal (SMP) prices (due to an increasing undersupply).

Figure 14: CGM price outlook (VND/kWh)



Source: EVN, MOIT, industry players, VCSC estimates

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 in order for the best new entrant power plant to break even.

Financial Statements for PPC*

P&L (VND bn)	2019	2020F	2021F	2022F	B/S (VND bn)	2019	2020F	2021F	2022F
Revenue	8,183	8,202	8,364	8,532	Cash & equivalents	241	287	340	396
COGS	-6,896	-7,210	-7,382	-7,594	ST investment	1,060	1,060	1,060	1,060
Gross Profit	1,287	992	982	938	Accounts receivables	2,045	1,798	1,833	1,870
Sales & Marketing exp	0	0	0	0	Inventories	657	667	683	702
General & Admin exp	-75	-94	-96	-98	Other current assets	206	206	206	206
Operating Profit	1,212	897	886	840	Total Current assets	4,208	4,018	4,122	4,234
Financial income	310	317	367	409	Fix assets, gross	13,564	13,614	13,664	13,714
Financial expenses	15	0	0	0	- Depreciation	-13,215	-13,261	-13,318	-13,374
- o/w interest expense	-12	0	0	0	Fix assets, net	349	353	346	340
Associates	0	0	0	0	LT investment	2,481	2,481	2,481	2,481
Net other income/(loss)	0	0	0	0	LT assets other	218	218	218	218
Profit before Tax	1,537	1,213	1,253	1,248	Total LT assets	3,047	3,051	3,045	3,039
Income Tax	-272	-205	-200	-192	Total Assets	7,256	7,069	7,167	7,273
NPAT before MI	1,265	1,008	1,053	1,057	Accounts payable	734	658	674	693
Minority Interest	0	0	0	0	Short-term debt	127	0	0	0
NPAT less MI, reported	1,265	1,008	1,053	1,057	Other ST liabilities	424	410	418	427
NPAT less MI, adjusted⁽¹⁾	999	1,008	1,053	1,057	Total current liabilities	1,284	1,068	1,092	1,120
EBITDA	1,248	943	942	896	Long term debt	0	0	0	0
EPS reported, VND	3,878	3,091	3,227	3,239	Other LT liabilities	0	0	0	0
EPS adjusted ⁽¹⁾ , VND	3,062	3,091	3,227	3,239	Total Liabilities	1,284	1,068	1,092	1,120
EPS fully diluted, VND	3,062	3,091	3,227	3,239	Preferred Equity	0	0	0	0
DPS, VND	2,700	3,000	3,000	3,000	Paid in capital	3,262	3,262	3,262	3,262
DPS/EPS (%)	77.4%	97.0%	93.0%	92.6%	Share premium	0	0	0	0
(1) Excluding forex translation loss					Retained earnings	2,709	2,739	2,813	2,891
RATIOS	2019	2020F	2021F	2022F	Other equity	0	0	0	0
Growth					Minority interest	0	0	0	0
Revenue growth	15.0%	0.2%	2.0%	2.0%	Total equity	5,972	6,001	6,075	6,153
Op profit (EBIT) growth	14.5%	-26.0%	-1.2%	-5.2%	Liabilities & equity	7,256	7,069	7,167	7,273
PBT growth	9.2%	-21.0%	3.2%	-0.4%					
EPS growth, adjusted	0.1%	1.0%	4.4%	0.4%	Y/E shares out, mn	326	326	326	326
Profitability					CASH FLOW (VND bn)	2019	2020F	2021F	2022F
Gross Profit Margin	15.7%	12.1%	11.7%	11.0%	Beginning Cash Balance	143	240	287	340
Op Profit, (EBIT) Margin	14.8%	10.9%	10.6%	9.8%	Net Income	1,265	1,008	1,053	1,057
EBITDA Margin	15.2%	11.5%	11.3%	10.5%	Dep, & amortization	36	46	56	56
NPAT-MI Margin, adj,	12.2%	12.3%	12.6%	12.4%	Change in Working Cap	-1,300	148	-28	-29
ROE	17.2%	16.8%	17.4%	17.3%	Other adjustments	-356	0	0	0
ROA	14.0%	14.1%	14.8%	14.6%	Cash from Operations	-354	1,203	1,081	1,084
Efficiency					Capital Expenditures, net	-19	-50	-50	-50
Days Inventory On Hand	15.4	10.9	10.9	11.0	Investments, net	2,321	0	0	0
Days Accts, Receivable	82.6	85.0	85.0	85.0	Cash from Investments	2,301	-50	-50	-50
Days Accts, Payable	33.3	35.2	32.9	32.8	Dividends Paid	-866	-979	-979	-979
Cash Conversion Days	72.9	83.3	85.4	85.4	Δ in Share Capital	0	0	0	0
Liquidity					Δ in ST debt	0	-127	0	0
Current Ratio x	3.3	3.8	3.8	3.8	Δ in LT debt	-984	0	0	0
Quick Ratio x	2.8	3.1	3.1	3.2	Other financing C/F	0	0	0	0
Cash Ratio x	0.2	0.3	0.3	0.4	Cash from Financing	-1,850	-1,105	-979	-979
Debt / Assets	1.7%	0.0%	0.0%	0.0%	Net Change in Cash	97	47	52	56
Debt / Capital	2.1%	0.0%	0.0%	0.0%	Ending Cash Balance	240	287	340	396
Net Debt / Equity	-19.7%	-22.5%	-23.0%	-23.7%					
Interest Coverage x	99.0	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.

Financial Statements for HND

P&L (VND bn)	2019	2020F	2021F	2022F	B/S (VND bn)	2019	2020F	2021F	2022F
Revenue	11,301	11,423	10,620	10,793	Cash & equivalents	779	1,479	1,707	2,206
COGS	-9,525	-9,684	-9,449	-9,651	ST investment	0	0	0	0
Gross Profit	1,777	1,739	1,171	1,142	Accounts receivables	2,278	2,214	2,059	2,092
Sales & Marketing exp	0	0	0	0	Inventories	598	654	638	652
General & Admin exp	-123	-130	-138	-146	Other current assets	1	1	1	1
Operating Profit	1,616	1,041	1,004	1,251	Total Current assets	3,655	4,349	4,405	4,951
Financial income	34	64	97	116	Fix assets, gross	22,313	22,313	22,313	22,313
Financial expenses	-397	-376	-283	-166	- Depreciation	-13,522	-15,381	-16,739	-18,097
- o/w interest expense	-383	-254	-203	-118	Fix assets, net	8,791	6,932	5,574	4,216
Associates	0	0	0	0	LT investment	1	1	1	1
Net other income/(loss)	2	0	0	0	LT assets other	217	217	217	217
Profit before Tax	1,265	1,304	854	953	Total LT assets	9,008	7,150	5,792	4,434
Income Tax	-62	-65	-43	-48	Total Assets	12,664	11,499	10,197	9,385
NPAT before MI	1,203	1,239	811	906	Accounts payable	313	345	337	344
Minority Interest	0	0	0	0	Short-term debt	1,815	1,554	1,006	874
NPAT less MI, reported	1,203	1,239	811	906	Other ST liabilities	723	538	500	508
NPAT less MI, adjusted⁽¹⁾	1,216	1,360	892	954	Total current liabilities	2,852	2,437	1,843	1,727
EBITDA	3,416	3,474	2,399	2,362	Long term debt	3,582	2,093	1,174	322
EPS reported, VND	2,407	2,479	1,623	1,812	Other LT liabilities	0	0	0	0
EPS adjusted ⁽¹⁾ , VND	2,431	2,721	1,783	1,909	Total Liabilities	3,582	2,093	1,174	322
EPS fully diluted, VND	2,431	2,721	1,783	1,909	Preferred Equity	0	0	0	0
DPS, VND	750	1,000	1,200	1,500	Paid in capital	5,000	5,000	5,000	5,000
DPS/EPS (%)	30.8%	36.8%	67.3%	78.6%	Share premium	0	0	197	197
(1) Excluding forex translation loss					Retained earnings	1,033	1,772	1,984	2,139
RATIOS	2019	2020F	2021F	2022F	Other equity	0	0	0	0
Growth					Minority interest	0	0	0	0
Revenue growth	18.6%	1.1%	-7.0%	1.6%	Total equity	6,230	6,969	7,180	7,336
Op profit (EBIT) growth	13.7%	-0.6%	-35.6%	-3.5%	Liabilities & equity	12,663	11,499	10,197	9,385
PBT growth	177.6%	3.1%	-34.5%	11.6%					
EPS growth, adjusted	131.4%	111.9%	65.5%	107.0%	Y/E shares out, mn	500	500	500	500
Profitability					CASH FLOW (VND bn)	2019	2020F	2021F	2022F
Gross Profit Margin	15.7%	15.2%	11.0%	10.6%	Beginning Cash Balance	692	779	1,479	1,707
Op Profit, (EBIT) Margin	14.4%	14.1%	9.8%	9.3%	Net Income	1,203	1,239	811	906
EBITDA Margin	30.2%	30.4%	22.6%	21.9%	Dep, & amortization	1,789	1,858	1,358	1,358
NPAT-MI Margin, adj,	10.8%	11.9%	8.4%	8.8%	Change in Working Cap	-119	0	0	0
ROE	19.5%	19.5%	12.4%	13.0%	Other adjustments	-361	-146	125	-32
ROA	9.2%	11.3%	8.2%	9.7%	Cash from Operations	2,513	2,951	2,295	2,232
Efficiency					Capital Expenditures, net	-69	0	0	0
Days Inventory On Hand	18.3	23.6	25.0	24.4	Investments, net	32	0	0	0
Days Accts, Receivable	67.1	71.8	73.4	70.2	Cash from Investments	-37	0	0	0
Days Accts, Payable	11.3	12.4	13.2	12.9	Dividends Paid	-528	-500	-600	-750
Cash Conversion Days	74.0	83.0	85.2	81.7	Δ in Share Capital	0	0	0	0
Liquidity					Δ in ST debt	-1,861	-1,489	-919	-852
Current Ratio x	1.3	1.8	2.4	2.9	Δ in LT debt	0	-261	-548	-132
Quick Ratio x	1.1	1.5	2.0	2.5	Other financing C/F	0	0	0	0
Cash Ratio x	0.3	0.6	0.9	1.3	Cash from Financing	-2,390	-2,250	-2,067	-1,733
Debt / Assets	42.6%	31.7%	21.4%	12.8%	Net Change in Cash	86	701	228	499
Debt / Capital	46.4%	34.4%	23.3%	14.0%	Ending Cash Balance	779	1,479	1,707	2,206
Net Debt / Equity	74.1%	31.1%	6.6%	-13.8%					
Interest Coverage x	4.2	6.4	5.1	8.5					

Source: HND, VCSC

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