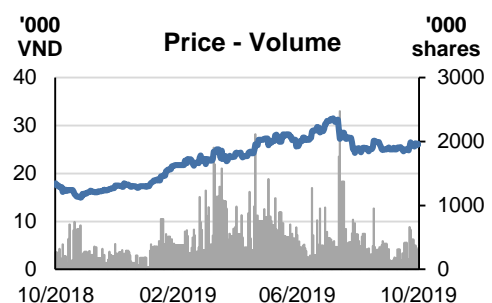


PPC (HOSE) Simply Indispensable

Rating **OVERWEIGHT**

Utilities - Power

Market price (VND)	25,000
1-Y target price (VND)	30,000
1-Y price return	20%
1-Y div return	7%
1-Y total return (%)	27%



Stock performance (%)

	YTD	1M	3M	12M
Absolute	51%	3%	-16%	46%
Relative	38%	1%	-18%	47%

Source: Bloomberg, compared to VNIndex

Stock Statistics 10-Oct-19

52-week range (VND)	14.9k-31.5k
Shares o/s (m)	321
Mkt cap (VND bn.)	8,368
Mkt cap (\$m)	361
% Foreign owned	16%
Est. free float (mn. shares)	79
3m avg. daily vol. (shares)	437,562
VND/USD	23,203
Index: VN-Index/HNX	988/105

Source: Bloomberg, KIS

Ownership 10-Oct-19

Genco 2	51.92%
Ree Corp	24.14%
Samarang Asian Prosperity	9.13%
Others	14.81%

Source: KIS

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Investment Points:

- **High mobilization rate by A0 in 2020.** Due to higher load factor from strong organic growth, A0 estimates that the electricity generation of the national energy system will rise by 8.95% YoY in 2020. Moreover, thanks to an extended El-Nino, PPC expects to generate up to 6,329 million Kwh (+8.6% YoY).
- **CGM cap price to lift in 2020.** The market price ceiling is estimated to increase thanks to the participation of Ca Mau TPP, of which variable cost is estimated at about VND1,522 per kWh, which benefits all players. We estimate PPC to see its EBIT margin and gross margin in 2020 increase to 16% and 17%, respectively.
- **New long-term coal contract with Vinacomin to guarantee coal supply.** A 10-year contract with Vinacomin helps PCC smooth its operation and improve its utilization rates.
- **A well thought out plan for a well thought out plant - Pha Lai 3.** The new thermal power plant is considered as a long-term main driver, tripling capacity to 1,700MW (+63.5%).
- In 2020, assuming improving output, increasing selling price and stable input cost, we estimate PPC's revenue and NPAT will reach VND8,342 billion and VND1,209bn, jumping by 8% and 30%, respectively.

Risks:

- **Policy risk:** The latest draft amendment for Circular 45/2018/TT-BTC in Sep 2019, if approved, will make direct significant impact to Qc and the ceiling price of Vietnam Competitive Generation Market.
- **Weather risk:** Looking ahead, unexpected weather can disrupt PPC's competitiveness.

Recommendation:

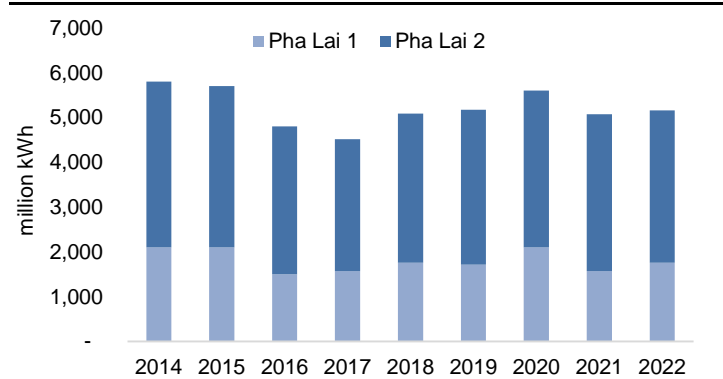
- Using the DDM valuation model and our forecasts, we evaluate **PPC** share at **VND30,000** per share at the end of 2020. Total return is **27%** (including 7% dividend return of the remaining VND1.8k cash dividend for 2019) in 1 year, thus we reiterate **OVERWEIGHT** recommendation for PPC for 1-year investment period.

VNDbn.	2016	2017	2018	2019E	2020E
Net revenue	5,977	6,236	7,117	7,733	8,342
Growth (%)	-22%	4%	14%	9%	8%
Net profit	554	854	1,155	927	1,209
Growth (%)	-2%	54%	35%	-20%	30%
EPS (bonus-adjusted, VND)	1,711	2,523	3,527	2,817	3,693
Growth (%)	8%	47%	40%	-20%	31%
ROE (%) (excl. minority)	11%	16%	20%	17%	21%
Net debt/Equity (%)	-28%	-31%	-30%	-28%	-27%
PER (x)	14.61	9.91	7.09	9.23	7.04
PBR (x)	1.55	1.46	1.41	1.49	1.43
EV/EBITDA (x)	14.12	8.46	5.55	6.31	4.74
Dividend yield (%)	10%	12%	11%	12%	12%

### 1. On pace to generate the highest annual output of electricity since 2015

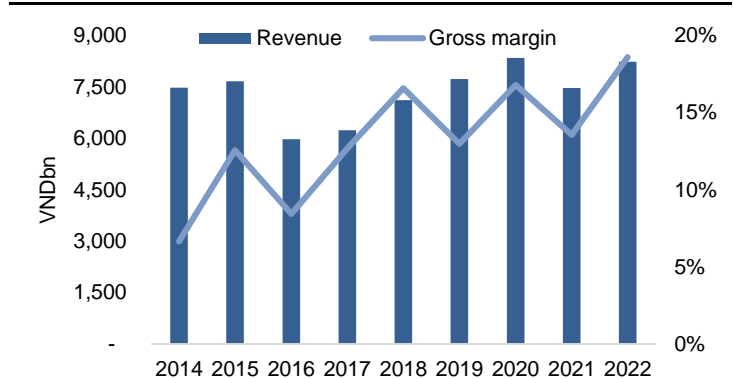
Due to higher load factor, A0 estimates that the electricity generation in 2020 of the national energy system will grow by 8.95% compared to 2019. In which, PPC expect to be mobilized up to 6,329 million Kwh (including their self-consumed power). Thus, 2020 will be marked as a year of generating the highest volume in its 5-year period since 2015. Under the expectation that contract volume rate remains the same at 80% in 2020, PPC's revenue will reach around VND8,300bn (+9% YoY). Such a favorable circumstance is technically explained by two main reasons.

**Fig 01. Commercial electricity outputs of PPC**



Source: PPC, KIS

**Fig 02. Revenue and gross margin of PPC**

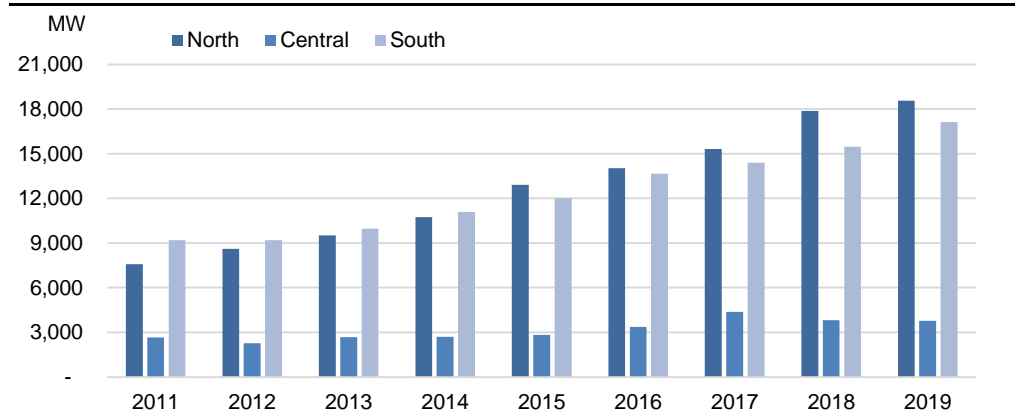


Source: PPC, KIS

#### 1.1. The North region has barely conditions for power capacity expansion:

According to the latest press release of EVN - National Load Dispatch Centre, the average demand of the South is higher than that of the North (13,088 MW and 12,414 MW in 9M2019, respectively). However, Northern peak load has outpaced Southern figure recently, reaching 18,568 MW in comparison with 17,135W in Sep 2019, which clearly means the reserve margin of the annual peak load in the North could drop faster than its counterparts.

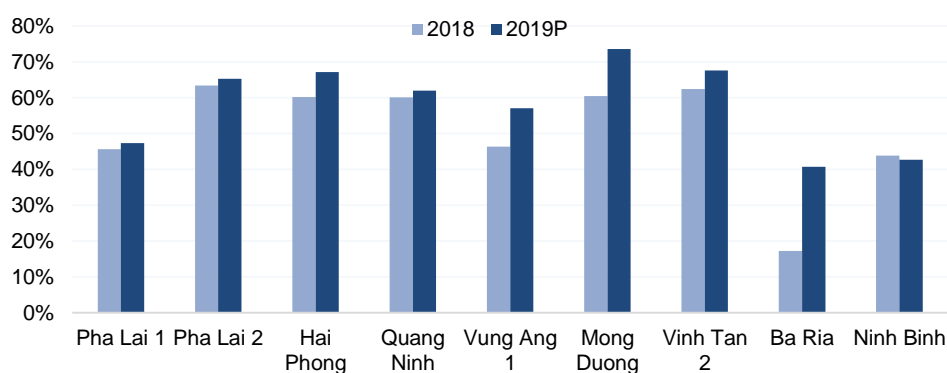
**Fig 03. Peak load by area**



Source: EVN NLDC, KIS

On the other hand, other power sources in the North are not enough to meet the electricity demand. Specifically, while hydroelectric resource is becoming scarce, the Northern region has not much potential to develop renewable energy such as solar, wind, etc because of its limited geothermal resources unlike the South and Central. Thus, renewable energy does not easily take hold the role of coal-fired power plants, at least in the Northern region. In other words, thermal power plants with stable utilization rates such as Pha Lai TPPs are highly selected as a priority.

**Fig 04. Utilization rate of key TPPs**



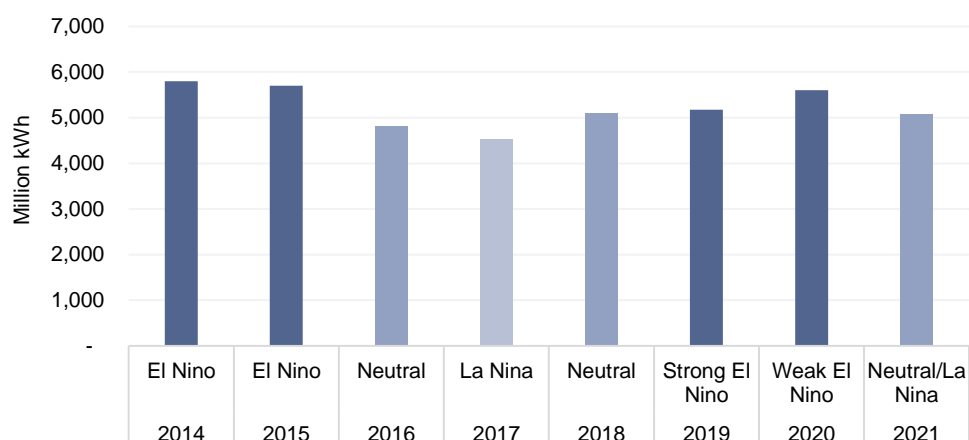
Source: KIS

## 1.2. El Nino – a not so temporary trend

**Reservoir levels below long-term average:** Thanks to the strong effect from El Niño this year, opportunities are really coming to coal-fired power plants in 2019, and especially for those located close to mining coal suppliers.

Although Viet Nam has entered the rainy season, the hydrological situation of the Northern reservoirs has improved insignificantly. According to the information updated until the end of August 2019, the water inflow rate of hydroelectric reservoirs was still low, mostly than the average for many years and in the same period in 2018, with the frequency ranging from 75-99%. As of 31 August 2019, the water level of 37 hydroelectric reservoirs of EVN was lower than that in the same period in 2018, of which 23 out of 26 reservoirs were applied with the water level under the Operating Procedures, which are also lower than that as prescribed. According to our assessment and the forecast of Vietnam Hydro meteorological Center, the phenomenon of El Nino will likely last much longer than just Nov 2019. Moreover, along with low water levels, El Nino phenomenon also leads to the high temperature of the North and the Central, resulting in the increase of electricity demand.

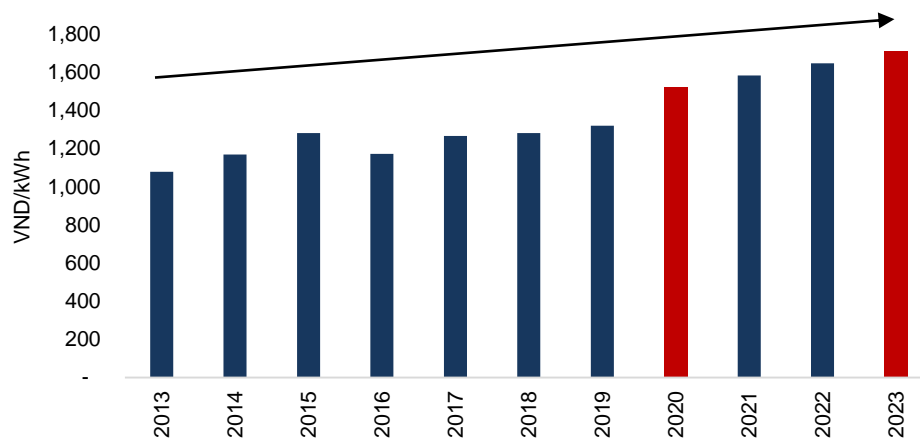
Under El Nino condition, the main source of electricity mobilization in the North is coal-fired power, thus making PCC one of the most beneficiaries.

**Fig 05. Commercial electricity outputs of PPC versus ENSO Phase**

Source: KIS, NHCMF

## 2. Higher and higher CGM cap prices

Within 5 years over, CGM price has increased by 52% from a low of VND868/kWh in 2012 to VND1,319/kWh in 2019. This upward trend is very positive for all power plants involved competitive market. Moreover, according to the latest Draft for amending and supplementing Circular 45/2018/TT-BTC in Sep 2019, the ceiling price of wholesale electricity market is assigned not be lower than the variable cost of those generators directly bidding price in the VCGM in order to bring more high-cost gas power plants into the market.

**Fig 06. CGM cap prices**

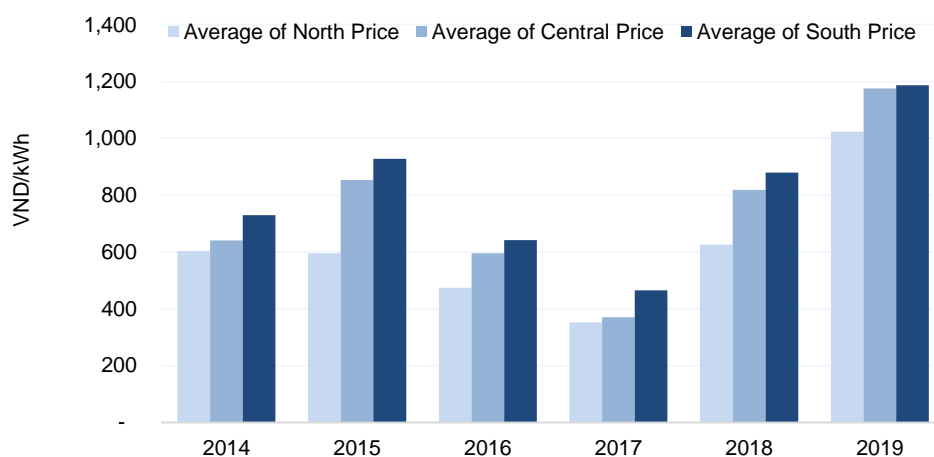
Source: EVN, KIS

One of the typical examples is Ca Mau 1 & 2 Thermal Power Plants, which are using PM3 - CAA gas source and of which gas input contracts will be expired at the end of 2019. Under new contracts, a part of input gas of Ca Mau 1&2 power plants bear a much higher pricing mechanism, about 90% of HFO price which is 75% higher than

the current one (46% of HFO). Therefore, in 2020, the competitive electricity market –CGM ceiling price is estimated to increase, in line with the variable cost of Ca Mau 1&2 plants, by 16% to about VND1,522 per kWh. The higher selling price in the market will help PPC to increase its EBIT margin and gross margin in 2020 to 16% and 17%, respectively.

In the longer term, basically in 2023, high cost materials such as LNG will be supplied for Nhon Trach 3 power plant. Under our estimation, the fuel cost for a LNG-fired generator will be roughly VND1,700 per kWh, which means higher CGM cap price, which, in turn, supports higher market price.

**Fig 07. Market price by area, 2014 - 2019**

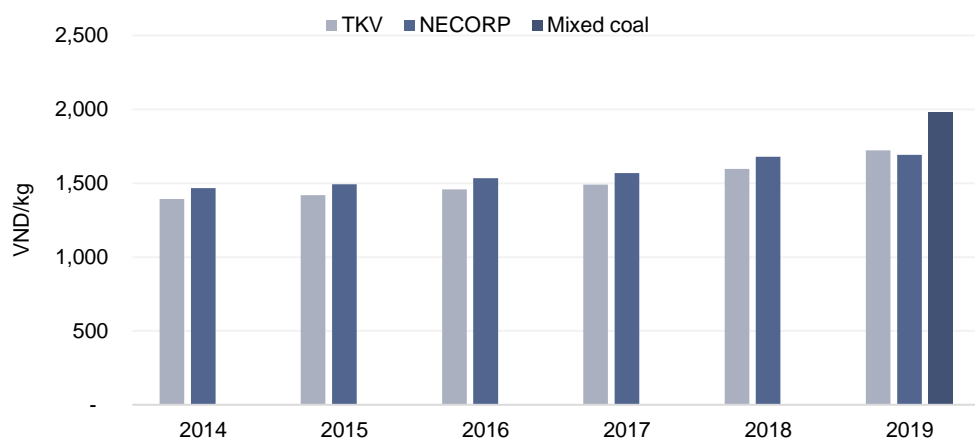


Source: EVN NLDC, KIS

### 3. There will be a coal shortage, but at least not for PPC

Long-term coal supply contracts with TKV (Vietnam National Coal-Mineral Industries Holding Corporation Limited) are becoming a special fulcrum for many thermal power companies from 2019 onwards. Despite the coal shortage of the thermal plants in 2018, supply was still enough for PPC. In the near future, such a concern is also not significant as PPC has officially confirmed its long-term coal supply contract with TKV. In 2019, TKV commits to provide 3.5 million tons of coal for PPC (included 70% of domestic coal and 30% of mixed one). As the matter stands, PPC is able to ensure both its commercial electricity output of at least 5.3 million kWh, increasing by 4% YoY and the utilization rate to reach a high level of 60% to 72%.

According to PPC's coal demand, around 200-250 tons of coal is consumed monthly. In short, ensuring coal supply and inventory will support PPC (1) to supply power during peak load hour, (2) to avoid the risk related to the volatile of FOB prices and the long interval transit time, compared to those which have to import coals by themselves and (3) to receive predetermined quality input material.

**Fig 08. Coal price for TPPs, 2014-2019.**

Source: TKV, KIS

#### 4. A well thought out plan for a well thought out plant – Pha Lai 3

Pha Lai Thermal Power Plant is planning to invest in a new thermal power plant: Pha Lai 3 - with total capacity of 660 MW. The preliminary total investment amount is VND20,709bn, of which 20% is financed by equity and 80% by loans. Tripling the capacity of PPC to 1,700MW, Pha Lai 3 thermal power plant is considered as the main long-term driver of the company.

Technical features (Detailed design)	Pha Lai 3 Thermal Power Plant
Capacity	660 MW
Input	Coal, 1.2 mn tons/year
Annual nominal production capacity	4.29bn kWh/year
Tmax	6,500 hours
Self-consumption rate	6.06%
Amount of coal used per kWh	397.8g/kWh
Coal amount per year	1,587,896 tons
Boiler efficiency	91.03%
Steam turbine generator efficiency	46.97%
Capital structure	Equity/Debt: 20%/80%
Progress	Conducting Pre-Feasibility study

Source: PPC

Financial indicator	Equity/Debt (20/80)
The preliminary total investment amount (after-tax)	VND20,709bn
Cost of Project per kW (USD/kW)	USD1,345
Projected LCOE per kWh	VND1,361
Average selling price (VND/kWh)	VND1,631
<i>Equivalent to (US Cent/kWh)</i>	7 Cents/kWh
FIRR	11%
NPV	VND7,770bn

Source: PPC

Pha Lai 3 plant is estimated to have higher profitability thanks to its modern technology, less coal consumption rate, being favorably located in the heart of industrial clusters and benefit from the existing infrastructure. PPC is currently conducting a pre-feasibility study to submit Pha Lai 3 power plant to the Power VIII Planning. However, as the plan is quite far away and few details have been released, we have not included Pha Lai 3 thermal power plant in our valuations.

## 5. Earnings projection & Valuation

### 5.1. Earnings projection

	2018	2019E	2020E	Assumption
<b>Net revenue</b>	<b>7,117</b>	<b>7,733</b>	<b>8,342</b>	
Pha Lai 1 (PL1)	2,652	2,785	3,369	Fixed cost of PPA1 decrease by VND20 from 2020
Pha Lai 2 (PL2)	4,465	4,948	4,973	Fixed cost of PPA2 has no change
<i>Growth (%)</i>	<i>14%</i>	<i>9%</i>	<i>8%</i>	
<b>Gross profit</b>	<b>1,181</b>	<b>1,128</b>	<b>1,495</b>	
<i>Margin (%)</i>	<i>17%</i>	<i>15%</i>	<i>18%</i>	
<b>EBIT</b>	<b>1,099</b>	<b>1,040</b>	<b>1,399</b>	
Net interest expenses	(158)	(168)	(116)	
<b>Net income</b>	<b>1,155</b>	<b>927</b>	<b>1,209</b>	
EPS (VND, bonus-adjusted)	3,527	2,817	3,693	

Source: PPC, KIS estimate

### 5.2. Valuation

We maintain **OVERWEIGHT** ratings on PPC. Using the DDM with our expectation that the company will pay dividend consistently due to the fact that PPC could afford to pay cash dividends even when the business results went down dramatically through both El Niño and La Niña phases in the past. Assuming no significant project until at least 2025 and having not reflect Pha Lai 3 into our model, we evaluate PPC share at **VND30,000** per share at the end of 2020. Hence, with today (10/10/2019) price is

VND25,000, the total 1-year expected return is **27%**. Therefore, our recommendation on PPC is **OVERWEIGHT** for 1-year investment period.

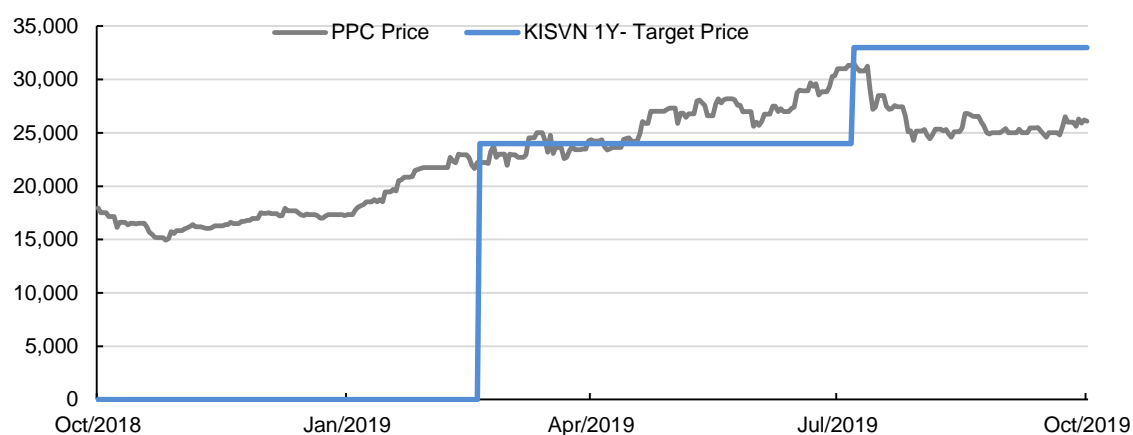
	2020F	2021F	2022F	2023F	2024F	2025F	Remarks
<b>Dividend Per Share (VND)</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3,500</b>	<b>3,500</b>	<b>Plenty of Cash on hand</b>
Cost of Equity	15%	15%	15%	15%	15%	15%	Forecasting
Terminal growth rate	4%						Sign of continued normal operations of the company
PV of dividends	3,000	2,609	2,268	1,973	2,001	1,740	
PV of Terminal Value	16,452						
<b>1-Y Target Price (VND)</b>	<b>30,000</b>						
<b>1-Y Price Return</b>	<b>20%</b>						
<b>Div return</b>	<b>7%</b>						<b>Remaining VND1.8k cash dividend for 2019</b>
<b>1-Y Total expected return</b>	<b>27%</b>						<b>2020</b>

Source: KIS forecasted

### 5.3. Changes to recommendation and price target

	Date	Recommendation	1-Y price target (VND)	Consensus
<b>PPC</b>	10-Jul-19	OVERWEIGHT	33,000	31,367
	22-Feb-19	NEUTRAL	24,000	23,550

### Comp. Estimates & Projections



Source: Bloomberg, KIS



## 7. Risks

### 7.1. Policy risk

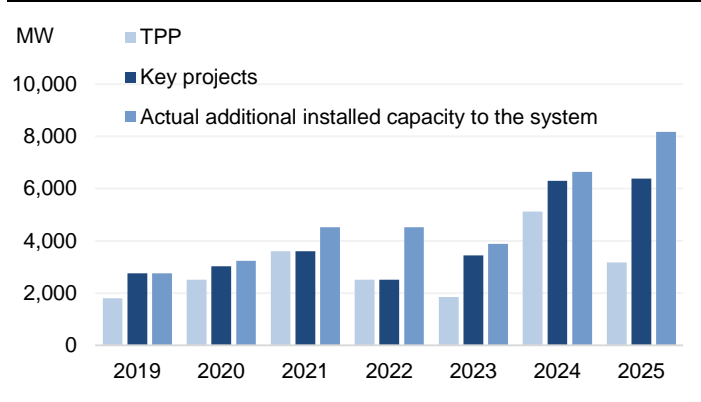
Along with the latest proposed amendment for Circular 45/2018/TT-BTC in Sep 2019, Qc of the months of the year and the alpha rate (within the range of 60% -100%) will be self - negotiated by the power plant and EVN. In case of no agreement is met, the Electricity Regulatory Authority of Vietnam (ERAV) will announce the alpha rate for each current technology type.

### 7.2. Weather risk

Looking ahead, unexpected weather can disrupt PPC's competitiveness in comparison with not only the direct hydro power plants trading in the market but also strategic hydro power plants.

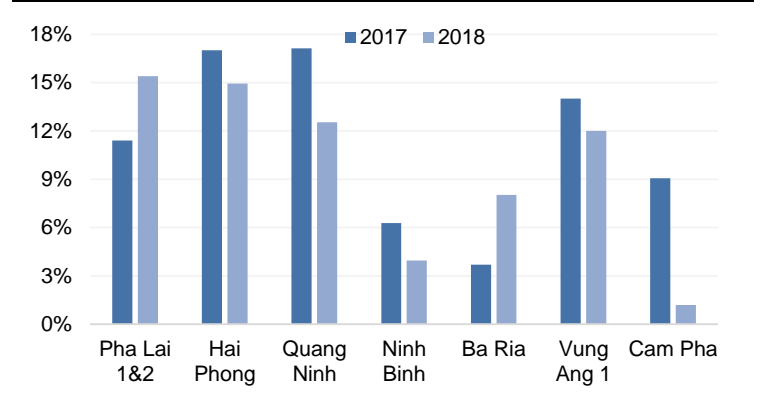
Appendix

Fig 09. New capacity, 2019-2025.



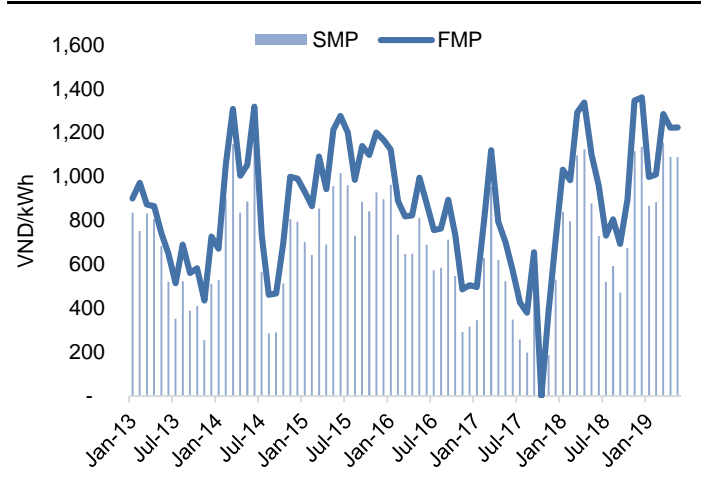
Source: EVN, KIS

Fig 10. EBIT margin of thermal power plants



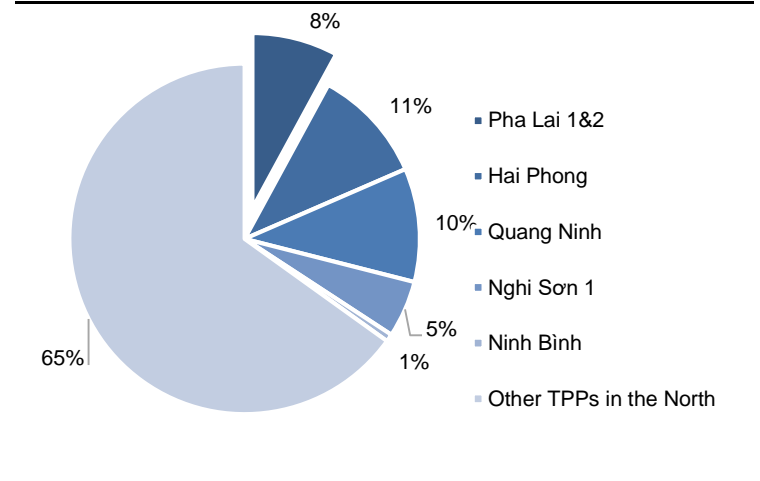
Source: KIS

Fig 11. Market price, 2013- 2019



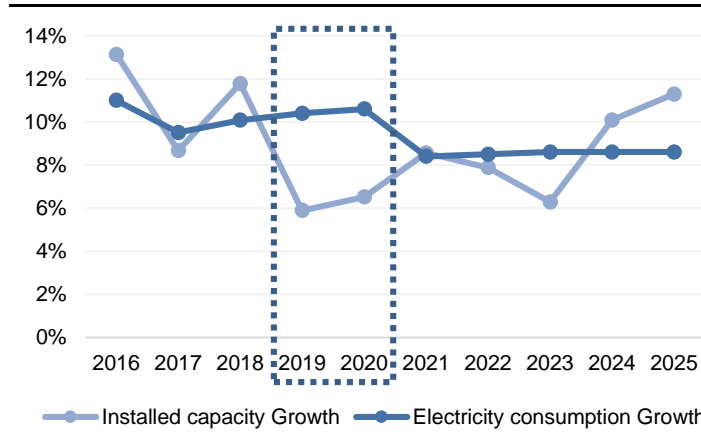
Source: NLDC EVN KIS

Fig 12. Electricity outputs of Northern power plants, 2019



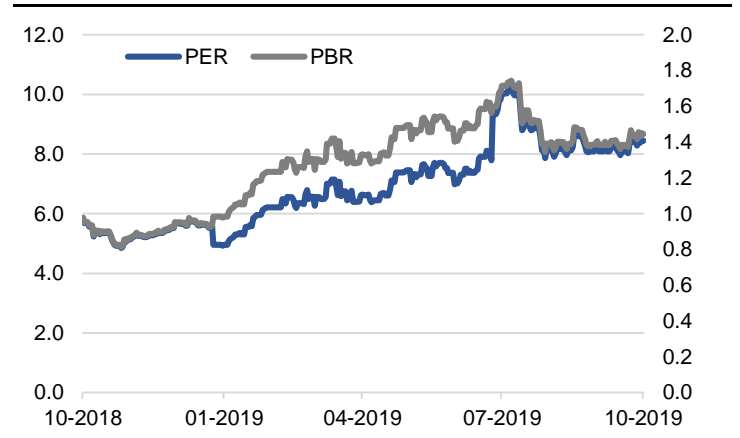
Source: TKV, KIS

Fig 13. Power installation and demand growth



Source: Bloomberg, KIS

Fig 14. TTM PER and PBR



Source: Bloomberg, KIS

FINANCIALS MODEL						BS & CF ITEMS (VNDbn)					
Unit: VNDbn	2016	2017	2018	2019E	2020E	2016	2017	2018	2019E	2020E	
<b>Net Revenue</b>	<b>5,977</b>	<b>6,236</b>	<b>7,117</b>	<b>7,733</b>	<b>8,342</b>	Increase in WC	-111	-293	363	51	92
<i>Sales growth (%)</i>	-22%	4%	14%	9%	8%	Capex	83	18	348	100	189
<b>COGS</b>	<b>5,474</b>	<b>5,445</b>	<b>5,936</b>	<b>6,605</b>	<b>6,847</b>	Other cash flow items	238	-97	-453	-	-
<i>Gross margin (%)</i>	8%	13%	17%	15%	18%	<b>Free cash flow</b>	<b>415</b>	<b>1,263</b>	<b>932</b>	<b>811</b>	<b>962</b>
SG&A	108	81	81	88	95	Share issues	-	-	-	-	-
EBITDA	468	747	1,134	1,074	1,434	Dividends paid	799	1,020	898	979	979
<i>EBITDA margin (%)</i>	8%	12%	16%	14%	17%	Increase in net debt	383	-242	-34	168	16
Depr'n & Amort'n	72	37	35	35	35	<b>Net debt, end of year</b>	<b>-1,450</b>	<b>-1,692</b>	<b>-1,726</b>	<b>-1,559</b>	<b>-1542</b>
<b>Operating profit</b>	<b>396</b>	<b>710</b>	<b>1,099</b>	<b>1,040</b>	<b>1,399</b>	Enterprise value	6,604	6,324	6,290	6,778	6,794
<i>Operating margin (%)</i>	7%	11%	15%	13%	17%	<b>Total equity</b>	<b>5,194</b>	<b>5,477</b>	<b>5,683</b>	<b>5,607</b>	<b>5,813</b>
Net interest expense	-271	-216	-158	-168	-116	Minority interests	38	-	-	-	-
As % of avg. net debt	17%	14%	9%	10%	7%	<b>Shareholder's equity</b>	<b>5,156</b>	<b>5,477</b>	<b>5,683</b>	<b>5,607</b>	<b>5,813</b>
Interest cover (x)	-1.4	-3.3	-6.9	-6.1	12.0	BVPS (VND, bonus-adjusted)	16,079	17,082	17,724	17,488	18,129
Other profit/loss	-52	77	191	-45	0	Net debt / equity (%)	-28%	-31%	-30%	-28%	-27%
<i>of which: provision for ST investments</i>	87	92	179	-45	0	Net debt / EBITDA (x)	-3.1	-2.3	-1.5	-1.5	-1.1
Tax	62	149	293	236	307	<b>Total assets</b>	<b>10,587</b>	<b>7,548</b>	<b>6,974</b>	<b>6,393</b>	<b>6,639</b>
<i>Effective tax rate (%)</i>	10%	15%	20%	20%	20%	<i>Net debt = debts – cash &amp; equivalent</i>					
<b>Net profit</b>	<b>554</b>	<b>854</b>	<b>1,155</b>	<b>927</b>	<b>1,209</b>	<b>Key ratios &amp; Valuation</b>					
<i>Net margin (%)</i>	9%	14%	16%	12%	14%	2016	2017	2018	2019E	2020E	
Minorities	6	-	-	-	-	ROE (%) (excl minority interest)	11%	16%	20%	17%	21%
<b>Net attributable profit</b>	<b>549</b>	<b>854</b>	<b>1,155</b>	<b>927</b>	<b>1,209</b>	ROA (%)	5%	11%	17%	15%	18%
Number of shares (m)	326	326	326	326	326	ROIC (%)	9%	18%	27%	20%	27%
<b>EPS (VND, bonus-adjusted)</b>	<b>1,711</b>	<b>2,663</b>	<b>3,603</b>	<b>2,817</b>	<b>3,693</b>	WACC (%)	15%	15%	15%	15%	15%
<i>EPS growth (%)</i>	-2%	56%	35%	-20%	31%	PER (x)	14.6	9.9	7.1	9.2	7.0
DPS (VND)	2,000	3,000	2,800	3,000	3,000	PBR (x)	1.6	1.5	1.4	1.5	1.4
						PSR (x)	1.3	1.3	1.1	1.0	1.0
						EV/EBITDA (x)	14.1	8.5	5.5	6.3	4.7
						EV/Sales (x)	1.1	1.0	0.9	0.9	0.8
						Dividend yield (%) (bonus-adjusted)	10%	12%	11%	12%	12%

EBITDA = Net revenue – (COGs -Depr'n&Amort'n)– SG&A expenses

EBIT = EBITDA – Depr'n&Amort'n

Net interest expenses = interest expenses – interest income

Other profit/loss consists of other financial income/expenses, profit share from JVs/associates and other income/loss

Payout ratio = Dividend paid / Net attributable profit

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## Recommendation System

**OVERWEIGHT:** where we believe prospective 12 months VND total return (including dividends) will be 15% or more.

**NEUTRAL:** where we believe it will be -5% to 15%.

**UNDERWEIGHT:** where we believe it will be -5% or less.

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