

PETROVIETNAM POWER NHON TRACH 2 - INITIATION

Market Price	Target Price	Dividend Yield	Rating	Sector
VND23,250	VND30,100	8.6%	ADD	INDUSTRIALS

2 October 2020

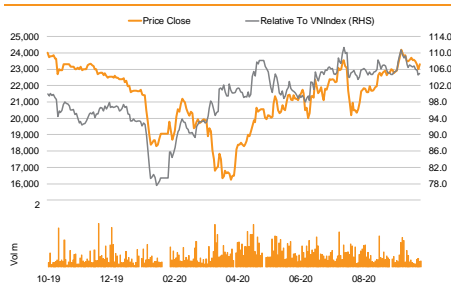
Outlook – Short term: Positive
Outlook – Long term: Positive
Valuation: Positive

Consensus*: Add:7 Hold:4 Reduce:0
Target price / Consensus:16.7%

Key changes in the report

➤ N/A

Price performance



Source: VND RESEARCH

Key statistics

52w high (VND)	24,200
52w low (VND)	16,250
3m Avg daily value (VNDmn)	6,358
Market cap (VNDbn)	6,621
Free float (%)	32
TTM P/E (x)	8.89
Current P/B (x)	1.63

Ownership

PetroVietnam Power	59.4%
CFTD Technologies	8.3%
Samarang UCITS - Samarang	
Asian Prosperity	5.0%
Others	27.3%

Source: VND RESEARCH

Analyst(s):



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Take advantage of energy-hungry Vietnam

- A major thermal power plant in Vietnam's Southern region to ride on the anticipated power shortage in Vietnam
- We expect FY20-22F net profit CAGR of 9.5% on the back of sustainable utilisation rate, higher CGM price and easing pressure on interest expense.
- Initiate with ADD rating and TP of VND30,100.

Major thermal power plant in Vietnam's Southern region

NT2 is the newest and most modern gas-fired power plant in Vietnam with 750MW of capacity, covering 2.4% of Vietnam's power demand. The plant is located in the heart of Southern region, which accounts for 46-48% of the country's total demand with FY15-19 demand CAGR of 9.1%. We expect NT2 would benefit from the widening power shortage in this region, due to delays in key power projects, and maintain a high utilisation rate of average 76% in FY20-22F, higher than FY17-19F average of 71%.

NT2's net profit to accelerate in FY21-22F

We expect NT2's FY20F net profit to drop 9.4% yoy to VND683bn due to a medium maintenance in 3Q20 which could reduce FY20F utilisation rate to 74%, and lower CGM price in FY20F (-13.5% yoy) amid weak electricity demand as a result of Covid-19 disruptions. However, we expect net profit to grow at a CAGR of 9.5% in FY20-22F, thanks to: (1) higher utilisation rate (77%) as power shortage condition in the South worsens, (2) lower interest pressure (by VND43bn per year) as NT2 would pay off all long-term debts from 1H21F, and (3) a recovery in electricity selling price as demand growth returns to the normal rate of 8-9%/year.

Dividend payouts to rise from FY21F

We expect NT2 to maintain a sustainable cash flow from operation of VND1,000bn-1,200bn annually, on the back of strong net profit growth in FY21-22F. This should allow the company to maintain its dividend payment of VND2,000-2,500/share in FY20-21F (similar to FY15-19 period), then increase its payment to VND3,200/share from FY22F. This translates to attractive dividend yield of 8.6%-10.9% in FY20-21F.

Initiate with ADD rating and TP of VND30,100

We recommend ADD for NT2 as we expect the plant to benefit from the power shortage condition in Southern region, on top of sustainable, high dividend yield. Our TP is based on an equal weighting of: (1) 5-year DCF valuation, and (2) target FY20-21F EV/EBITDA of 5.5x. Re-rating catalysts are improvements in utilisation rate and CGM prices from FY21F. Downside risks include lower-than-expected PPA price and unexpected gas supply issues which could affect NT2's operation.

Financial summary (VND)	12-19A	12-20E	12-21E	12-22E
Net revenue (bn)	7,654	7,152	7,869	8,071
Revenue growth	(0.2%)	(6.6%)	10.0%	2.6%
Gross margin	12.7%	12.9%	12.7%	12.7%
EBITDA margin	19.4%	19.8%	19.5%	19.3%
Net profit (bn)	754	683	794	819
Net profit growth	(3.6%)	(9.4%)	16.3%	3.1%
Recurring profit growth				
Basic EPS	2,620	2,373	2,760	2,845
Adjusted EPS	2,620	2,373	2,760	2,845
BVPS	14,336	14,724	14,989	14,639
ROAE	19.3%	16.3%	18.6%	19.2%

Source: VND RESEARCH

THE THIRD-LARGEST INSTALLED CAPACITY OF GAS-FIRED POWER

NT2's power plant adopted advanced technology from Siemens

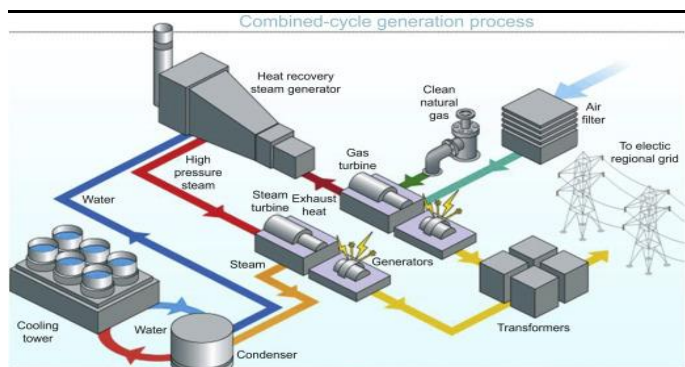
Inaugurated since 2011, Nhon Trach 2 power plant (NT2) operates with an installed capacity of 750 megawatts (MW), making up 9.3% of Vietnam's installed capacity of gas-fired power.

The company made its HOSE listing on 12 Jun 2015 with a charter capital of VND2,878bn. Its major shareholder is PetroVietnam Power Corporation (59.4%), a subsidiary of state-owned oil and gas group PetroVietnam (PVN). Besides, NT2 has an experienced Board of Management team with average 27 years of experience in managing and operating power plants, led by chairman Uong Ngoc Hai.

NT2 equipped a Combined cycle gas turbine (CCGT) F-generation with configuration 2-2-1 (two gas turbines with capacity of 250MW each, two heat recovery ovens and one 250-MW steam turbine). The control system is SPPA-T3000, an advanced automation control system developed by Siemens, which is the only one so far in Vietnam, helping ensure maximum performance.

The power plant also tops the contractually warranted figures both for power output and electrical efficiency and also in terms of lower emissions. In fact, the plant's nitrogen oxide emission at full load on gas is very low at 25 ppm (parts per million) or less, setting net power quality benchmarks for Vietnam's power industry.

Figure 1: CCGT F-generation production diagram



Source: VNDIRECT RESEARCH, COMPANY WEBSITE

Figure 2: Nhon Trach 2 power plant



Source: VNDIRECT RESEARCH, COMPANY WEBSITE

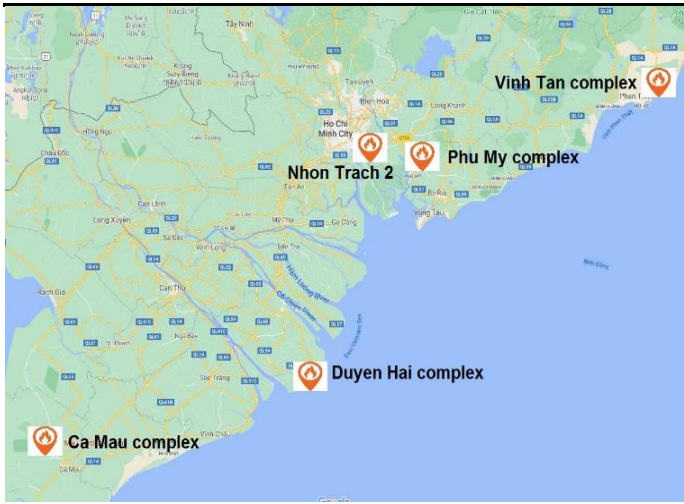
Second-highest gas-fired power plant in terms of utilisation rate thanks to its location

NT2 plant is based in the Ongkeo Industrial zone (IZ), Nhon Trach, Dong Nai, near the confluence of the Song Dong Tranh and Long Tau rivers. This IZ is located within the economic triangle of Ho Chi Minh City (HCMC) – Dong Nai – Ba Ria-Vung Tau and closer to these major electricity-consuming areas than other thermal power centers like Vinh Tan or Duyen Hai complex, which helps mitigate losses during electricity transmission. NT2 also acts as a backup supply when Ca Mau 1 and 2 power plants are shut for maintenance (every 4-5 years) through the five transmission lines radiating to both the Eastern and Southwestern areas from the Nhon Trach region.

Due to its strategic location and efficient operation, NT2 commanded a stable utilisation rate over the last five years, even during the 2017 period when hydropower was highly utilised thanks to high water levels as a result of the La Nina phenomenon. NT2's average utilisation rate in FY14-19 was 73%, above those of other gas-fired plants such as Ca Mau 1 and 2 (58%), Ba Ria thermal power plant (25%) and Phu My power plants (69%). For FY20-25F, we forecast NT2's utilisation rate to stay around 75% due to the worsening power shortage

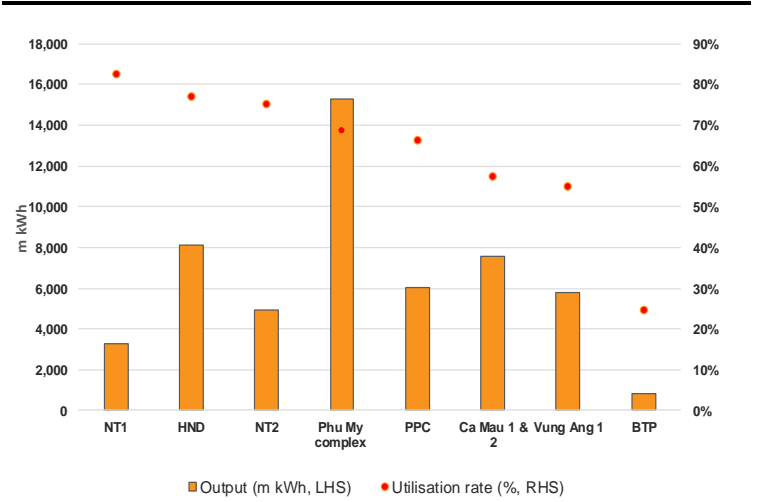
in the South, except for FY23F (74%) when we expect the plant to undergo a periodic overhaul.

Figure 3: Location of Nhon Trach 2 and other thermal power plants



Source: VNDIRECT RESEARCH

Figure 4: NT2's output and utilisation rate vs. other thermal power plants (in FY19)

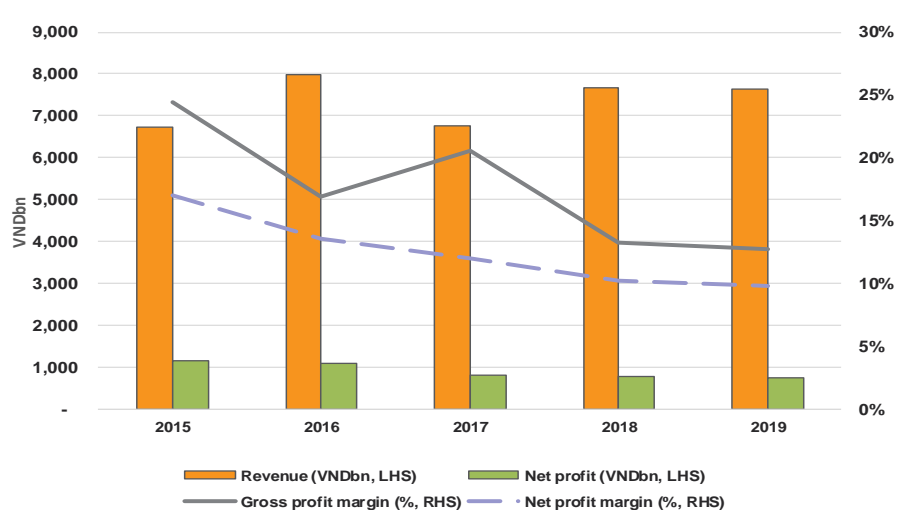


Source: VNDIRECT RESEARCH

Net profit declined in FY15-19 due to a rise in natural gas input price and FX loss

We see a gradual decline in NT2's net profit during FY15-19 due to: 1) unrealised FX losses, for example an appreciation of EUR/VND in 2017 (+13.4%) leading to a VND234.7bn loss in FX, 2) gas input price in FY17-18 rose 26% and 20% yoy respectively and insufficient gas supply issue in 2018 led to a shortfall in output, and 3) a heavy rain in FY16-17 even in hot season, led to lower demand for electricity and shrank the electricity selling price on the competitive generation market (CGM).

Figure 5: NT2's business results in FY15-19



Source: VNDIRECT RESEARCH, COMPANY REPORT

In 2019, NT2 generated 4.9bn kWh of electricity, completing 106% of the company's plan. Net revenue stayed flat yoy at VND7,654bn (-0.2% yoy) while net profit fell slightly to VND754bn (-3.6% yoy). Although 2019's weather was favorable for thermal power plants (hot weather and water shortage at

hydropower dams), the plant failed to take advantage of these due to the inability to mobilise additional gas supply during the peak of the dry season and lower capacity price in FY19, VND140/kWh vs. VND215/kWh in FY18, leading to lower electricity selling price in the competitive market.

We believe the concern over gas supply shortage will ease from 2021 onwards

The plant receives its gas input from the Nam Con Son and Cuu Long basins, through the pipelines to Dinh Co and Nam Con Son gas processing plants then being transported to NT2's power plant. Thanks to a long-term contract of 25 years with the supplier PVGas, NT2 faced a lower risk of gas shortage than other peers such as Nhon Trach 1, Ba Ria thermal power plant. The agreement ensures a minimum of 784 m³ of natural gas supply per year and NT2's gas supply managed to stay around 917 m³/year in FY15-19 even though other plants faced gas shortage issues due to the gas depletion at Nam Con Son and Cuu Long basins at an average rate of 8-20%/year.

In addition, in 1H20, the company also signed an agreement with PVGas on the additional supply of gas from the upcoming Sao Vang – Dai Nguyet fields (expected to come online by end-2020, early-2021), therefore we see little risk of gas supply shortage for NT2 from FY21F onwards.

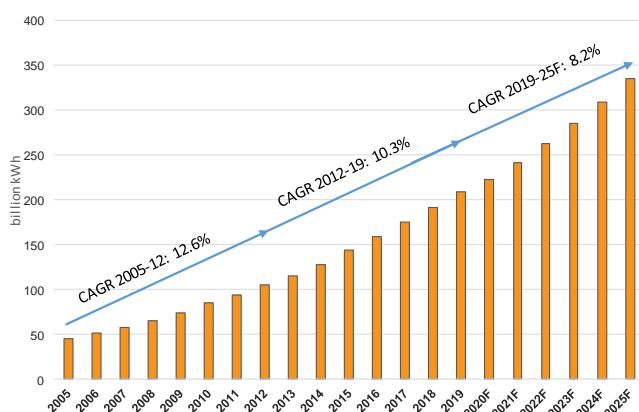
NT2 TO BENEFIT FROM THE POWER SHORTAGE IN SOUTHERN VIETNAM

Vietnam will likely face severe power shortage in FY21-22F as supply is growing at a much slower pace than demand

Vietnam's electricity consumption has grown rapidly in tandem with the industrialisation process and integration of Vietnam into the global economy. Over the past ten years, electricity consumption has increased by nearly 2.8 times, from 75TWh in 2009 to 209TWh in 2019. This translates into a CAGR of 11.1%, almost twice the country's GDP growth.

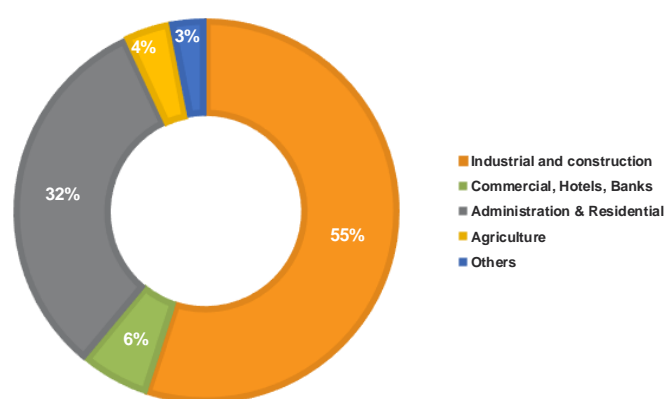
Based on an assumption of 7.0% GDP growth per year in 2016-25F, the Vietnam Energy Institute projects the demand for electricity to increase by 9.0% per year over the 2019-21F period and 8.6% per year over the FY21-25F period. This has not taken into account the effects of the Covid-19 pandemic on electricity demand in FY20F, which could lower the demand growth rate in FY20F to 2.2% yoy, according to Electricity Vietnam (EVN). However, we believe the impact of Covid-19 on demand to be only short-term, and demand growth could return to 8-10%/year from FY21F as the economy is revived by easing monetary policy, solid macroeconomic background and recovering export demand.

Figure 6: Electricity demand is expected to grow at 8.2% CAGR during 2019- 2025



Source: VND RESEARCH, Ministry of Industry and Trade (MoIT)

Figure 7: Electricity consumption in Vietnam in 2018, by user



Source: VND RESEARCH, ELECTRICITY VIETNAM GROUP (EVN)

In terms of supply, according to the country's revised power development plan (Revised PDP VII), Vietnam needs a power capacity of 60,000MW by 2020F and 96,500MW by 2025F. By the end of 2019, total installed capacity reached 55,939MW (+13.3% yoy) mainly thanks to 5,398MW additional capacity from renewable energy sectors, completing 90% of PDP VII's target (Source: EVN). However, we believe this gap could expand further and peak in FY21-22F before ebbing in FY25F, due to the delay of 47/62 projects having capacity over 200MW (scheduled to come online in FY19-25F) by 1-2 years. Specifically, according to a report by EVN about the progresses of new power projects, by May 20, Vietnam completed only 77.7% the 2016-20F's plan of additional power source, mostly due to delays in PVN's new power projects. In addition, a supply of total 14,490MW is unlikely to meet schedule in FY21-25F, hence new supply could complete only 54.7% of the FY21-25F plan. Based on the current project pipeline, we estimate Vietnam's total supply to grow at a CAGR of 3.4% in FY21-22F, much lower than the demand CAGR of 9.0%. Lagging new capacity installation amid strong demand could worsen the power shortage condition, implying higher sales volume for current power producers with spare capacity and higher electricity selling prices in the competitive market, in our view.

Figure 8: Several key projects have been delayed in the revised PDP VII (issued in 2011)

Projects	Type	Capacity (MW)	Original plan	New plan	Projects	Type	Capacity (MW)	Original plan	New plan		
North region			7,680		Central region			20,230			
Thai Binh I	Coal-fired	1,200	2018	Unknown	Ialy (Ext)	Hydro	360	2020	2024		
Na Duong 2	Coal-fired	110	2019	2023	Quang Trach I	Coal-fired	750	2021	2024		
Cam Pha 3	Coal-fired	440	2020	Unknown	Duyen Hai 2	Coal-fired	1,200	2021	2022		
Hai Duong	Coal-fired	1,200	2020	2021	Nghi Son 2	Coal-fired	1,200	2021	2022		
Hoa Binh (Ext)	Hydro	480	2021	2023	Cong Thanh	Coal-fired	600	2021	2024		
Nam Dinh 1	Coal-fired	1,200	2022	2025	My Ly	Hydro	250	2021	2024		
An Khanh	Coal-fired	650	2022	2023	Quynh Lap 1	Coal-fired	1,200	2022	Unknown		
Hai Phong III	Coal-fired	1,200	2025	Unknown	Vung Ang 2	Coal-fired	1,200	2022	2024		
Quang Ninh III	Coal-fired	1,200	2030	Unknown	Vinh Tan III	Coal-fired	1,980	2022	2025		
South region			14,820		Van Phong I			Coal-fired	1,320	2022	2024
Long Phu I	Coal-fired	1,200	2019	Unknown	Dung Quat I	Gas-fired	750	2023	2024		
Song Hau I	Coal-fired	1,200	2019	2021	Mien Trung 1&2	Gas-fired	1,500	2023	2025		
O Mon III	Gas-fired	750	2020	2025	Quang Tri I	Coal-fired	1,320	2023	2027		
O Mon IV	Gas-fired	750	2021	2023	Dung Quat II	Gas-fired	750	2024	Unknown		
Nhon Trach 3&4	Gas-fired	1,500	2021	2024	Vung Ang III	Coal-fired	1,200	2024	Unknown		
Kien Giang 1&2	Gas-fired	1,500	2021	Unknown	Bac Ai	Hydro	1,200	2025	2028		
Song Hau 2	Coal-fired	2,000	2021	2024	Quynh Lap II	Coal-fired	1,200	2026	Unknown		
Long Phu 2	Coal-fired	1,320	2021	Unknown	Son My	Gas-fired	2,250	2027	Unknown		
Long Phu III	Coal-fired	1,800	2022	Unknown							
Long An I	Coal-fired	1,200	2025	Unknown							
Long An II	Coal-fired	1,600	2027	Unknown							

Source: VNDIRECT Research, MoIT

Reserve margin is narrowed and expected to drop to zero from FY21F

Vietnam's reserve margin (the difference between usable capacity and peak demand) was c.12.2% in 2019 in our estimate. The reserve margin has been well below the standard level of 20% in the past five years, due to the growth difference between electricity demand (CAGR of 10.2% over FY14-19) and installed capacity (CAGR of 10.7% over FY14-19) and the unmatched development of power source and transmission lines, which left the usable capacity only at 75% of installed capacity by end-FY19. However, the reserve margin declined further to an average of 8.3% in 1H20, as peak demand (P-max) rose 2.4% yoy to 38.6GW, while usable capacity remained flat at 42.1GW.

Based on the schedule of upcoming projects, we expect the issue of lagging capacity expansion and gridline development to cause reserve margin to fall below 0% in FY22-25F, reinforcing the risk of electricity shortage in Vietnam.

Figure 9: Peak demand vs usable capacity

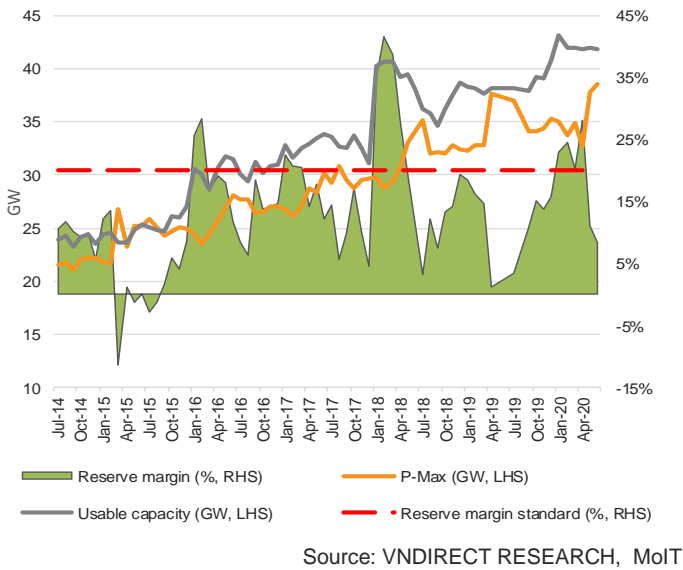
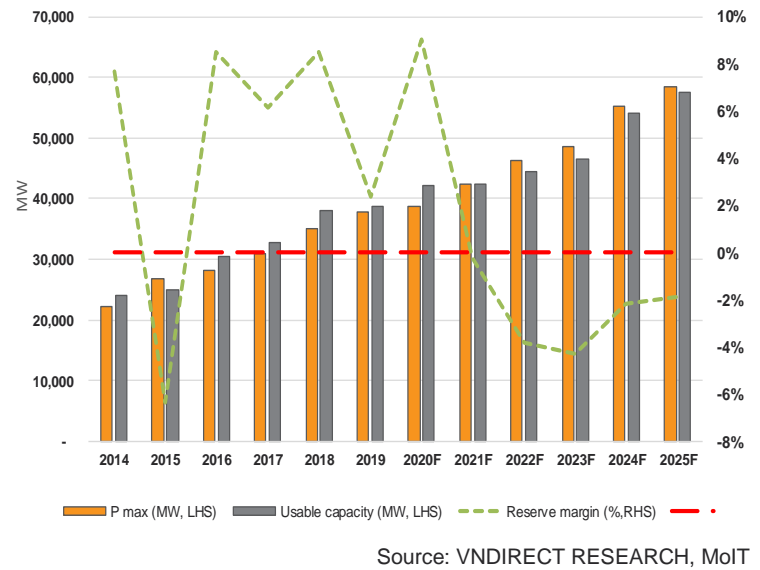


Figure 10: Reserve capacity forecasts in FY21-25F



Southern region will experience severe power shortages than others

The South has been the biggest power-consuming region in Vietnam, making up 46-48% of the country’s total electricity demand in FY15-19. Despite the electricity supply CAGR of 11.7% during 2015-20F, the Southern power plants were unable to meet the growth of 9.0% p.a in electricity consumption in the region. About 16bn kWh of electricity had to be transmitted from the North and Central regions to the South annually through the 500kv line.

We expect the power shortage in the Southern region to peak in FY23F, double hit by the delays of 3,150MW of FY19-21F Southern new project by 1-2 years, and narrowing reserve margin in the North and Central regions (leading to lower transmitted volumes through the national power gridline).

Figure 11: Electricity consumption by region in FY17-19 (bn kWh)

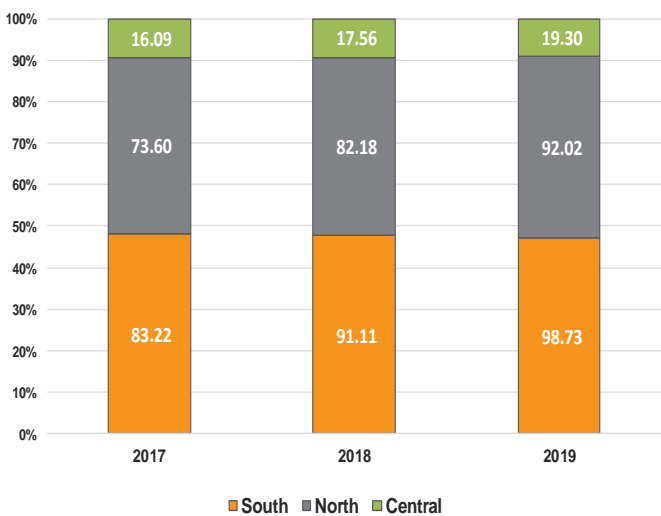
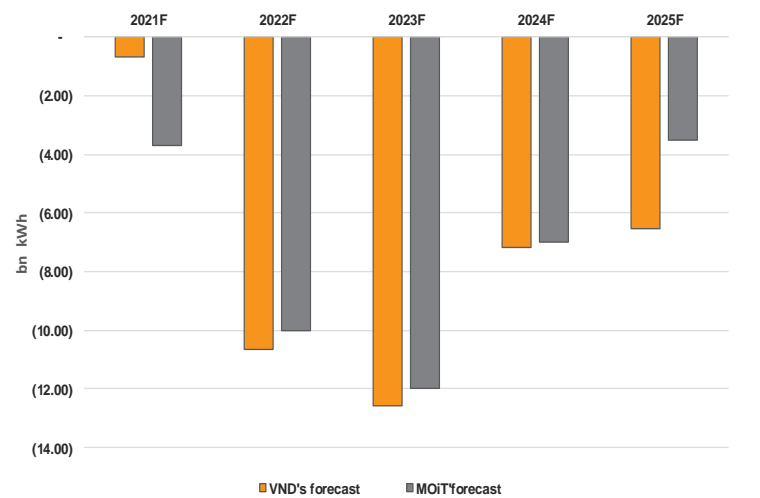


Figure 12: Southern power shortage forecasts in FY21-23F



OUTLOOK: SOLID CASHFLOW PROMOTES HIGH DIVIDEND PAYOUTS
Brighter outlook from FY21F onwards
Figure 13: NT2 business result forecasts for FY20-25F

	2018	2019	2020F	2021F	2022F	2023F	2024F	2025F
Output (m, kWh)	4,737	4,952	4,862	5,059	5,059	4,862	4,928	4,928
Utilisation rate (%)	72.1%	75.4%	74.0%	77.0%	77.0%	74.0%	75.0%	75.0%
Gas input price (US\$/mmbtu)	7.10	7.16	6.23	6.98	7.13	7.29	7.43	7.56
Average selling price (dong/kWh)	1,607	1,546	1,471	1,555	1,595	1,673	1,695	1,709
Revenue (VNDbn)	7,670	7,654	7,152	7,869	8,071	8,133	8,352	8,423
Growth (%)	13.4%	-0.2%	-6.6%	10.0%	2.6%	0.8%	2.7%	0.8%
Gross profit (VNDbn)	1,015	974	923	999	1,028	910	959	978
Gross profit margin (%)	13.2%	12.7%	12.9%	12.7%	12.7%	11.2%	11.5%	11.6%
Financial income	73	48	14	14	14	14	14	14
Financial expense	(192)	(168)	(150)	(102)	(106)	(99)	(100)	(101)
Pre-tax income	824	797	719	840	864	749	796	812
Net profit	782	754	683	794	819	709	717	731
Net profit margin (%)	10.2%	9.9%	9.5%	10.1%	10.1%	8.7%	8.6%	8.7%
Cash dividend (VND/share)	2,400	2,500	2,000	2,500	3,200	3,200	3,200	3,200

Source: VNDIRECT RESEARCH, COMPANY REPORT

We expect FY20F net revenue/net profit to drop to VND7,152bn (-6.6% yoy)/ VND683bn (-9.4% yoy) on the back of 1) a schedule 30-45 days maintenance period in 3Q20, which would affect NT2's utilisation rate in FY20F (74.0% vs. FY19's 75.4%) and 2) lower CGM price in FY20F (-13.5% yoy) amid weak electricity demand as a result of Covid-19 disruptions.

In FY21-22F, we estimate NT2's net profit CAGR of 3.1%, thanks to: 1) a high utilisation rate (77%) in FY21-22F as power shortage situation in Southern region becomes more serious from FY21F, and 2) a 70.0% yoy drop in interest expense thanks to debt clearance in 1H21F.

In FY22-25F we expect a decline in NT2's net profit CAGR of 3.7%, due to: 1) an overhaul in FY23F, after 100,000 EOH (Equivalent Operating Hours), and 2) tax rate rises to 10% in FY24F from 5% in FY23F, as tax incentive policy will expire in FY24F (10%) and FY26F (20%).

We forecast a stable dividend payout rate during FY21-25F despite lower net profits, due to 1) debt clearance in FY21F will relieve NT2 from FX risk and interest pressure, 2) a solid cash flow from operating activities, around VND1,000-1,200bn annually, and 3) a motivation for high dividend policy to support parent company PVPower's cashflow in upcoming years.

Electricity selling price is expected to increase from FY21F onwards

Electric Power Trading Company (EPTC) is the sole buyer of NT2's output, through a power purchase agreement - PPA and competitive generation market - CGM. The annual contracted output (Qc) in the PPA is assigned annually by the electricity regulator in Vietnam, which often ranges 3,900-4,200m kWh (equal to 80% of total output) for NT2. The remaining volume (Qm) is sold in the competitive generation market through a bidding scheme among generators.

Total electricity selling revenue would be calculated by the following formula:

$$Q = Qc \times Pc + Qm \times Pm$$

Q: total sales volume

Pc: electricity selling price in PPA

Qc: volume sold through PPA

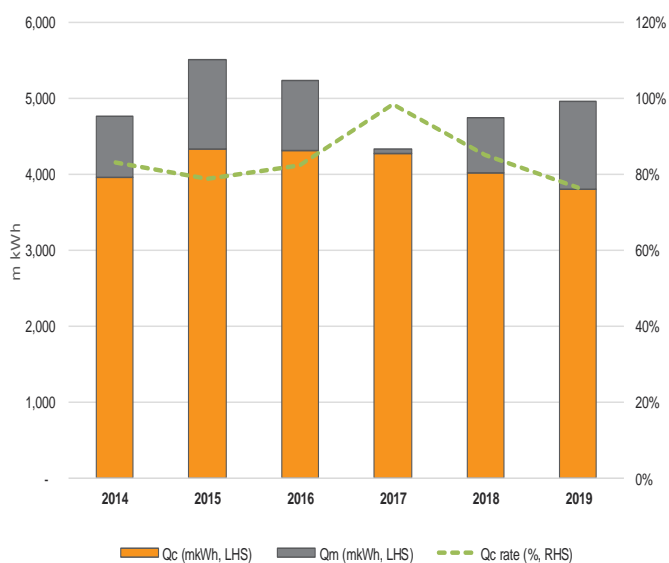
Pm: electricity selling price in CGM

Qm: volume sold through CGM

For the PPA contract, PPA price (P_c) is constructed by fixed price (including investment cost, operation & maintenance cost, interest expenses, depreciation) and variable price (mainly prices revised on the basis changes to cost of gas and other variable costs). Accordingly, a higher gas input price would be 100% passed through to EVN with respect to the volume sold under the PPA.

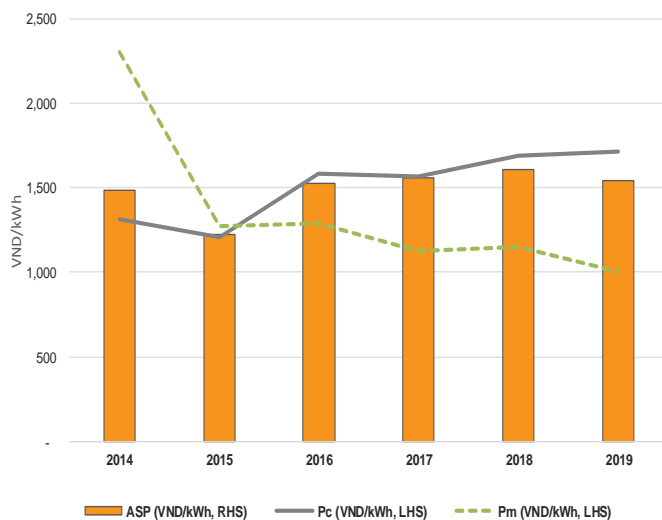
For the competitive electricity market, P_m will be determined by two main components: capacity add-on (CAN) price, which is recalculated annually based on four recently-operated thermal plants, and spot electricity market price (SMP), which is affected by demand and supply of the electricity market. For NT2, P_m is usually 30.0% lower than P_c .

Figure 14: NT2's Qc & Qm in FY14-19



Source: VNDIRECT RESEARCH, COMPANY REPORT

Figure 15: NT2's ASP, P_c and P_m in FY14-19

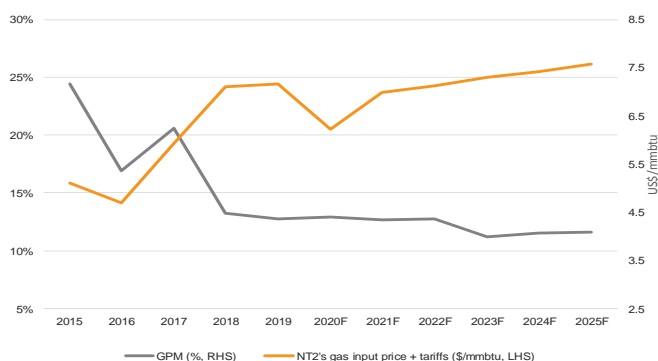


Source: VNDIRECT RESEARCH, COMPANY REPORT

We expect NT2's electricity ASP to decrease 4.8% yoy in FY20F, due to a 9.6% yoy decline in P_c on the back of a 13.0% fall in gas input price, and a 13.5% decline in P_m as the power demand was affected temporarily by the Covid-19 disruptions. However, from FY21F onwards, we think the electricity selling price will return to growth territory due to 1) a recovery in oil price from US\$45/bbl in FY20F to US\$57/bbl in FY22F, coupled with higher contribution of the high-cost Sao Vang Dai Nguyet fields, which causes P_c to grow 7.6% yoy in FY21F and 2.2% yoy in FY22F, and (2) higher CGM prices as new thermal power plants joining the CGM in upcoming years would lift up the capacity added-on price component, meanwhile electricity shortage would support the spot market price. As a result, we expect NT2's ASP to rise 5.7% yoy in FY21F and 2.6% in FY22F.

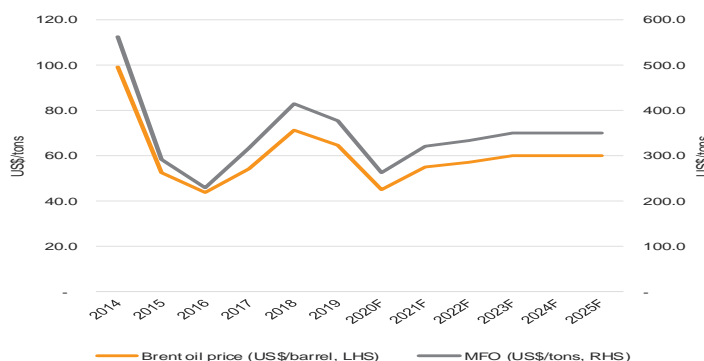
We also note that NT2 and EPTC/EVN are under negotiation for P_c revision in the current 10-year PPA (which would end in mid-2024). The company's representative suggests a potential downward revision in P_c to reflect a lower-than-expected cost of construction of the plant; however the changes in net profit would not be adjusted retrospectively. We already incorporate a VND20/kWh P_c reduction in our valuation from FY21F onwards, but we see only small effects on the bottomline (-9.6% of net profit & -1.1% in net revenue)

Figure 16: NT2 gas price: history and forecast for FY20-25F



Source: VNDIRECT RESEARCH, COMPANY REPORT

Figure 17: Brent & MFO price forecast for FY20-25F



Source: VNDIRECT RESEARCH, Bloomberg data

Gas cost is the largest component in NT2's cost of goods sold, making up 74-80.0% in FY15-19 on average. The gas input price is calculated based on the formula: gas cost plus transportation tariff, in which gas cost is the higher of 46% MFOC (the average monthly fuel oil price in Singapore market according to Platt's Magazine) and the wellhead price.

We expect the company's gas input price to decrease 13.0% yoy in FY20F on the back of a 30.4% yoy decline in oil price. However, the gas input price is forecast to increase 12.2% yoy in FY21F due to: 1) expected recovery in Brent crude oil in FY21F (+22.2% yoy), and (2) the 16% contribution of higher-cost supply Sao Vang - Dai Nguyet fields (with the wellhead price of US\$6.99/mmbtu, which is already double those of existing gas fields).

1H20 net profit rose by 10.7% yoy

In 1H20, NT2 generated 2,412 kWh (-5.8% yoy) of electricity. Revenue fell to VND3,599bn (-10.4% yoy) as average selling price (ASP) dipped 3.3% yoy. More specifically, the CGM price in 2Q20 declined 22.5% yoy due to weak demand as a result of Covid-19 disruptions and a much lower capacity add-on (CAN) price stipulated for FY20F (average VND63.5/kWh, down 55% from the VND140.9/kWh level in FY19). On the other hand, net profit rose 10.7% yoy to VND428bn thanks to 1) a 10.7% yoy decline in gas input price, leading to an expansion of 2.6pts in gross profit margin (GPM), 2) interest expenses dropped 33.0% yoy thanks to VND544bn debt repayment in 2Q20.

Figure 18: 1H20 business results of NT2

		1H20	1H19	yoy%	% vs. NT2's plan	% vs. our forecast	Comment
Output	m kWh	2,411.7	2,560.3	-5.8%	53.6%	49.6%	A lower electricity demand due to COVID-19's impact
Gas input price	US\$/mmbtu	6.12	6.85	-10.7%		98.3%	Due to a significant fall yoy of Brent oil price in 1H20, average at US\$42.1/barrel (-36.3% yoy)
ASP	VND/kWh	1,492.3	1,568.1	-4.8%		101.4%	Due to: 1) a lower gas input price, thus lower Pc, and 2) the average 2Q20 CGM price fell 22.5% yoy
Revenue	VNDbn	3,598.9	4,014.8	-10.4%	50.1%	50.3%	
COGS	VNDbn	3,056.1	3,514.1	-13.0%	46.8%	49.1%	Thanks to a 10.7% yoy lower in gas input price in 1H20
Gross profit	VNDbn	542.8	500.8	8.4%	83.2%	58.8%	Due to: 19.4% yoy drop in input material cost (gas and fuel oil price), which accounts for 80% of COGS
Gross profit margin	%	15.1%	12.5%	2.6pts			
Operating profit	VNDbn	455.3	377.0	20.7%		55.2%	
Financial expense	VNDbn	65.9	93.2	-29.2%		44.0%	
in which: interest payment	VNDbn	24.6	47.1	-47.9%		32.9%	NT2 paid VND544bn of debt in 2Q20
Net profit	VNDbn	428.0	386.6	10.7%	69.0%	62.7%	
EPS	VND/share	1,449.0	1,303.0	11.2%	67.3%	61.1%	

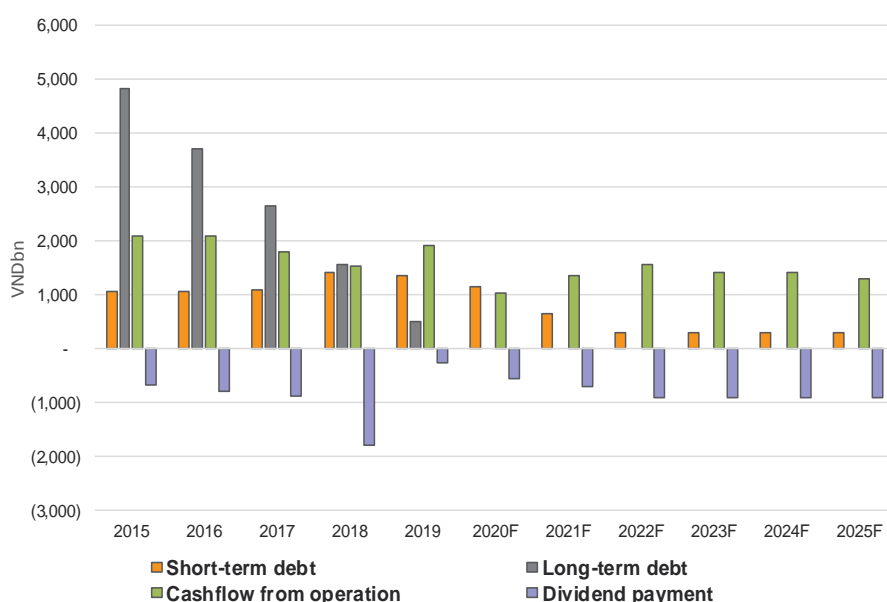
Source: VNDIRECT RESEARCH

Healthy balance sheet allows high dividend payout

Vigorous debt payment eases pressure on interest payment and FX risk

NT2 incurred VND14,400bn of debts in 2011 to finance the construction of its plant, mostly long-term and denominated in US\$ and EUR. The company's short-term debt is made up of long-term debt due in the next 12 months. Since 2015, NT2 has focused on paying most of its outstanding foreign currency loans (~VND1,200bn per year), hence the debt balance fell to VND1,306bn as at 30 Jun 2020. According to the payment schedule, NT2 would finish paying its long-term debt in FY21F; we expect this could lessen the interest pressure (average VND184bn per year) from FY21F onwards, given no major capital needs in the upcoming 2-3 years. At the same time, lower debts imply a lower risk from FX fluctuations; we estimate that at the current level of debt NT2 would incur only VND8bn of FX loss for each 1% appreciation in USD/EUR vs. VND.

Figure 19: Quick debt payment boosts NT2's cashflow, promising higher dividends

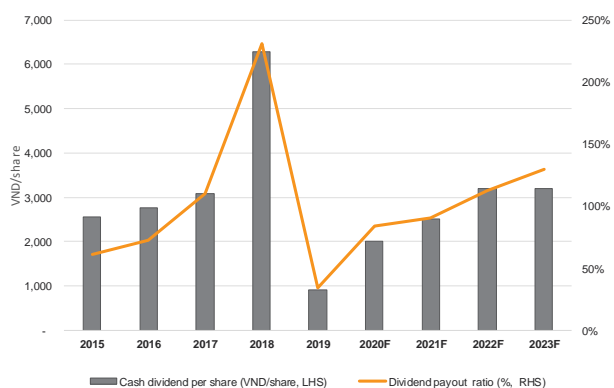


Source: VNDIRECT Research, COMPANY REPORT

Dividend payout to take off from FY21F onwards

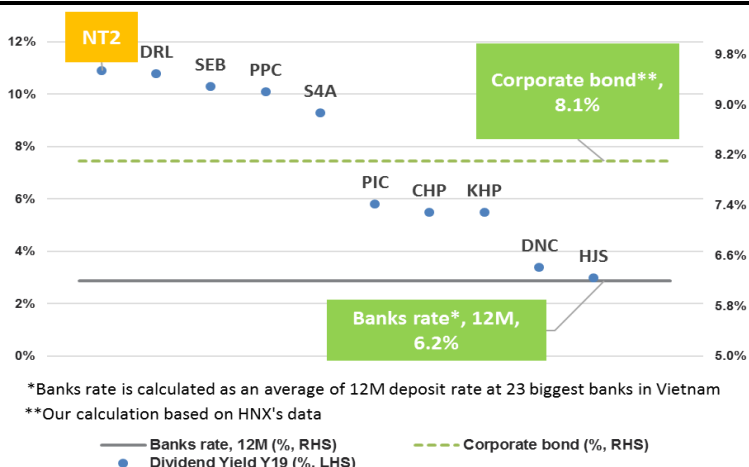
In FY14-19, thanks to its strong cash flow, the company maintained a high dividend payout ratio of average 102%, equivalent to nearly VND900bn pa. Since the company does not have any big investment project in the pipeline, we expect NT2 to ramp up its cash dividend payment from FY21F, when the company finishes paying long-term debts, on the back of sustainable cashflow from operation of VND1,000bn-1,200bn annually. We forecast cash dividend of VND2,000-2,500/share in FY20-21F, then increasing to VND3,200/share from FY22F, higher than the FY15-19 average of VND2,700/share.

Figure 20: Dividend payout ratio



Source: VNDIRECT RESEARCH, COMPANY REPORT

Figure 21: Quick debt payment boosts NT2's cashflow, promising higher dividends



Source: VNDIRECT RESEARCH, COMPANY REPORT

Among power generation plants, NT2 is among the top companies with high dividend payment in FY15-19. Its expected FY20-21F dividend yield of 8.6% - 10.9% is higher than current average 1-year interest rate of 6.2%, and average interest rate of 8.1% of corporate bonds privately issued in Jul 2020.

Furthermore, PVPower, a major shareholder of NT2 (59.4% stake), is preparing capital for heavy CAPEX in FY21-22F, which mainly include Nhon Trach 3 and 4 projects. Therefore, we expect that NT2 is motivated to maintain a high dividend payment policy to support POW's cashflow in upcoming years.

INITIATE WITH ADD RATING AND TP OF VND30,100

We initiate coverage on NT2 with an ADD rating. We value NT2 using a combination of DCF valuation and FY21F EV/EBITDA multiple. We believe DCF valuation is a fundamentally sound way to value a power company as cashflow is more predictable but an EV/EBITDA multiple is more likely to reflect market perceptions on NT2 and its peers' outlooks. Therefore, we use an equal weighting to derive a blended valuation for NT2.

We use 5-year DCF to derive NT2's intrinsic value of VND31,040/share, applying WACC of 14.4% and terminal growth rate of 0%. We prefer EV/EBITDA to P/E as a valuation method for NT2 as its regional peers have capital structures that are very different to NT2's. Hence we use the average of international and regional peer's CY21F EV/EBITDA multiple (5.5x) to derive our end-FY21F EV/EBITDA valuation of VND29,141 for NT2. The combination of these two valuation methods leads to our target price of VND30,100.

We recommend Add for NT2 due to 1) benefit from the serious power shortage condition in Southern region, expected from FY21F, 2) debt clearance in 1H21F leading to lower interest pressure, and 3) a high dividend yield. Re-rating catalyst is high plant utilisation rates thanks to recovering electricity demand in the Southern region.

Figure 22: DCF valuation

	2019	2020F	2021F	2022F	2023F	2024F	2025F
EBITDA	1,578	1,520	1,592	1,619	1,494	1,543	1,440
(-) Depreciation and Amortisation	(690)	(695)	(694)	(693)	(690)	(691)	(571)
EBIT	888	825	898	926	803	852	869
(-) Tax	(52)	(41)	(49)	(48)	(43)	(85)	(87)
Tax rate (%)	5.9%	5.0%	5.5%	5.2%	5.3%	10.0%	10.0%
EBIAT	835	783	849	877	760	767	782
(+) Depreciation and Amortisation	690	695	694	693	690	691	571
(+) (Increase)/decrease in NWC	544	(311)	(148)	15	2	(19)	(15)
(-) Capital Expenditure	(5)	(8)	(7)	(6)	(6)	(7)	(7)
Unleveraged Free cash flow (FCFF)	2,064	1,160	1,388	1,580	1,446	1,432	1,331
Terminal value							9,274

Source: VNDIRECT RESEARCH

Figure 23: DCF - Assumption
Assumption

Risk-free rate, bloomberg, 10Y	4%
Beta, bloomberg, 5Y	1.0
Equity risk premium (ERP)	11%
Cost of Equity - ke	15%
Cost of debt - kd (after tax)	8.6%
Traget debt to captial ratio	10%
WACC	14.4%

Source: VNDIRECT RESEARCH

Figure 24: DCF - Valuation
DCF Valuation

Enterprise value	10,101
(-) Debt	(1,305.6)
(+) Cash	140.6
Equity value including Minority interest	8,936
(-) Minority interest	-
(-) Preferred share	0
Implied equity value	8,936
Outstanding share (mn shares)	288
Equity value per share	31,040

Source: VNDIRECT RESEARCH

Figure 25: EV/EBITDA valuation
EV/EBITDA Valuation

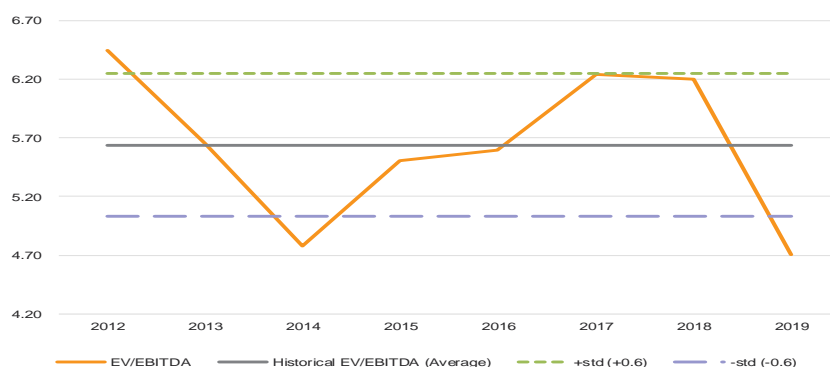
EV/EBITDA, peer average, 1-yr	5.5
Enterprise value	8,758
(-) Debt	(649.8)
(+) Cash	280.30
Equity value including MI	8,389
(-) MI	0
(-) Preferred share	0
Implied equity value	8,389
Outstanding share (m)	288
Equity value per share	29,141

Source: VNDIRECT RESEARCH

Figure 26: Valuation results
VALUATION RESULTS

Methodology	Price (VND)	Weight	Target price (VND)
DCF	31,040	50%	15,520
EV/EBITDA, 1-yr forward	29,141	50%	14,570
Average price			30,090
Discount			
SUM(VND)			30,090
Round			30,100
Current price			23,250
Upside/(Downside)			34.1%

Source: VNDIRECT RESEARCH

Figure 27: Historical EV/EBITDA


Source: VNDIRECT RESEARCH

Figure 28: Peer Comparison

Company	Ticker	Recom.	Price		Mkt Cap	PE (x)		P/BV (x)		EV/EBITDA (x)		ROE (x)		D/E (x)
			LC\$	LC\$		US\$ m	TTM	CY20F	TTM	CY20F	TTM	CY20F	TTM	
International peer														
An Hui Wenergy Co Ltd	000543 CH Equity	NR	4.1	NA	1,381.9	9.8	NA	0.7	NA	8.7	NA	7.7	NA	0.6
Gudian Changan Electric Power	000966 CH Equity	NR	3.7	NA	600.6	8.9	8.3	1.0	0.9	5.6	5.8	11.5	11.4	0.9
First Gen Corp	FGEN PM Equity	NR	23.4	NA	1,733.3	5.6	7.6	0.8	0.8	4.7	4.6	12.0	9.4	0.8
Dian Swastatika Sentosa TPT	DSSA IJ Equity	NR	16,475.0	NA	852.6	22.3	NA	0.6	NA	7.7	NA	2.3	NA	0.8
SJVN Ltd	SJVN IN Equity	NR	21.9	NA	1,172.2	5.7	NA	0.7	NA	4.2	NA	14.4	NA	0.2
Malakoff Corp Bhd	MLK MK Equity	HOLD	0.9	1.1	1,104.1	12.2	13.8	0.7	0.8	5.0	5.4	6.4	5.8	1.9
JSW Energy Ltd	JSW IN Equity	NR	56.0	NA	1,254.7	8.4	NA	0.8	NA	5.5	NA	9.4	NA	0.7
Average					1,157.1	10.4	9.9	0.8	0.8	5.9	5.3	9.1	8.9	0.8
Domestic peer														
Petro Vietnam Power Corp	POW VN Equity	ADD	10,700	13,600.0	1,080.6	11.47	9.82	0.9	0.8	6.0	5.9	8.1	8.5	0.6
Hai Phong Thermal Power JSC	HND VN Equity	NR	18,200	NA	392.4	7.76	7.12	1.5	NA	4.1	4.1	19.7	18.2	0.9
Pha Lai Thermal Power JSC	PPC VN Equity	ADD	23,700	27,300.0	327.7	6.96	8.41	1.3	1.3	7.0	7.4	18.5	15.5	0.0
Power Generation JSC 3	PGV VN Equity	NR	11,900	NA	549.1	14.85	NA	1.1	NA	6.7	NA	7.9	NA	4.7
Power Construction JSC 1	PC1 VN Equity	HOLD	21,800	17,200.0	149.8	10.02	NA	0.9	NA	8.1	NA	9.9	NA	0.8
BaRia Thermal Power JSC	BTP VN Equity	NR	14,300	NA	37.3	4.50	NA	0.7	NA	3.1	NA	16.7	NA	0.3
Ninh Binh Thermal Power JSC	NBP VN Equity	NR	12,200	NA	6.8	5.58	17.1	0.6	NA	3.6	NA	11.1	NA	0.1
Gialai Electricity JSC	GEG VN Equity	NR	16,000	NA	187.1	19.44	14.40	1.7	1.4	8.9	NA	9.4	10.3	1.5
Average					341.3	10.1	11.4	1.1	1.1	5.9	5.8	12.7	13.1	1.1
PetroVietnam Nhon Trach 2	NT2 VN Equity	ADD	23,250	30,100	288.6	9.1	8.9	1.7	1.6	4.8	5.5	18.0	16.8	0.5

 Source: VNDIRECT RESEARCH, BLOOMBERG (Data 02th Oct 2020)

RISKS

- Technical issues with the gas compression system could disrupt gas supply for NT2's power plant. Historically, technical issues at Vietnam's largest gas fields (Lan Tay/Lan Do at Nam Con Son basin) caused gas output to decrease by 10% to 18m m3/day from 21m m3/day during 27 March to 4 June 2018. Hence this technical risk could reduce gas supply for NT2 and affect the business performance. Notably, the current gas supply for NT2 is around 917m m3 per year, while PVGAS commits to supply 784m m3 of gas per year according to the 25-year gas supply agreement between NT2 and PVGAS.
- The recovery of hydropower in FY21F when La Nina phenomenon is expected to present early in the year. With the recovery of hydropower, the electricity selling price in the CGM could be lower than previous years. However, we think a lower CGM price has a small impact on NT2's business results thanks to its high Qc rate as NT2's power plant is highly mobilised by EVN.

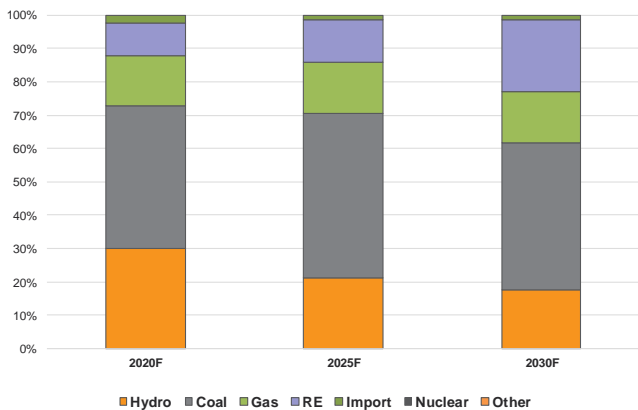
APPENDIX

Vietnam’s electricity market

Over the past three decades, Vietnam has witnessed dramatic increases in energy demand. Electricity consumption has increased by approximately 12-15% per year, requiring a huge increase in generation capacity from a modest amount of 8.7GW in 1990 to 55.9GW by end-2019. After 30 years of economic reforms, Vietnam has become one of the most highly electrified countries in the world, with grid electricity reaching 98% of the population and strong economic growth is driving the per capita consumption of electricity. The rapid increase in demand for energy is attributed to expanding industrial and construction sectors, which accounted for 53.8% of Vietnam’s total consumption, followed by the residential sector with 32.9% (EVN’s report in 2018).

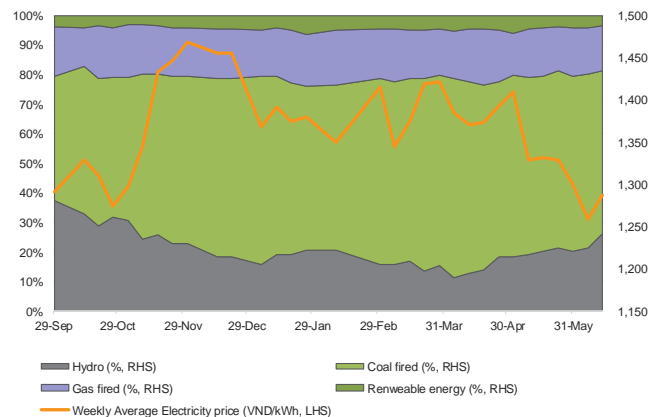
In terms of supply, Vietnam has developed a various of electricity generating sources thanks to a wide range of natural resources. Hydropower, natural gas and coal are the primary energy sources for electricity production. In 2019, coal-fired power surpassed hydropower to contribute the largest share in Vietnam’s total electricity output (48.2%), followed by hydropower, at 30.3% and gas, at 17.5%. Apart from hydropower, RE accounted for only a minor part (<10% Vietnam’s total capacity).

Figure 29: Installed capacity according to PDP VII (Revised)



Source: VNDIRECT RESEARCH, EVN

Figure 30: A recent EVN’s mobilisation rate, by type



Source: VNDIRECT RESEARCH, EVN

Hydroelectric plants play a major role in Vietnam’s power system

Vietnam has a potential hydroelectric capacity at 35GW, located 60% in the Northern region, 27% in the Central and 13% in the Southern regions. By 2018 hydropower plants account for 35.1% of the total installed capacity (~17GW), generated 83bn kWh (c. 37.5% total Vietnam’s output). However, the system depends mostly on weather effects like El Nino and La Nina, which is a major factor in water discharge for hydro dams.

According to the U.S. Center for Atmospheric and Atmospheric Research (NOAA), the El Nino phenomenon already ended and the probability of La Nina by the end of 2020 has increased to 60-65%. With the weather returns to neutral status and preparing to enter La Nina phase, hydroelectric plants could be relieved from water scarcity leading to rising output and lower average electricity price on the market.

Coal-fired segment: coal supply faced several issues

Coal-fired power plants account for 38.1% of the total installed capacity, equivalent to nearly 18.5GW and generate 91.6bn kWh in 2018 (c.41.4% Vietnam’s total output).

A serious coal shortage used to threaten Vietnam’s power plants in 2018-19 when Vinacomin, Vietnam’s top coal producer, failed to meet the demand from

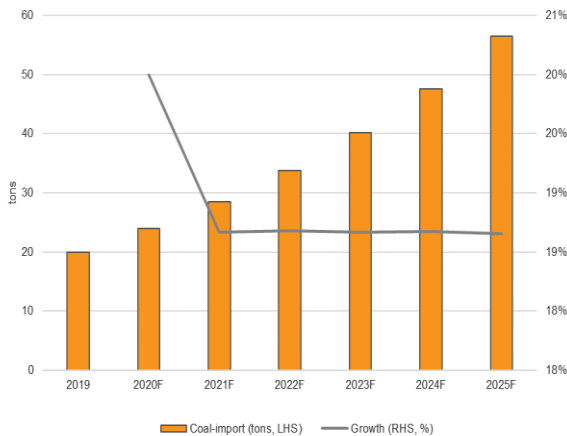
thermal power plants. Since 2019, the problem has been eased thanks to the mixed-coal solution by Vinacomin which balanced the imported coal and the domestic coal at an appropriate proportion for thermal plants. However, it not only raises the coal input price for thermal plants, but also brings other concerns, such as:

- Coal quality compatibility: Incompatible coal source, leading to a higher rate of heat loss and input costs. The mixed coal has higher volatile matter (>12%) than domestic coal (>6%). However, domestic thermal technology is incompatible with the fossil with high volatility, leading to an increase in the heat loss rate.

The incompatibility from mixed coal could also lead to technical problems during the operation of thermal plants, which may trigger several pauses for the plants to repair, leading to rising costs. This is a common challenge for POW, PPC and QTP.

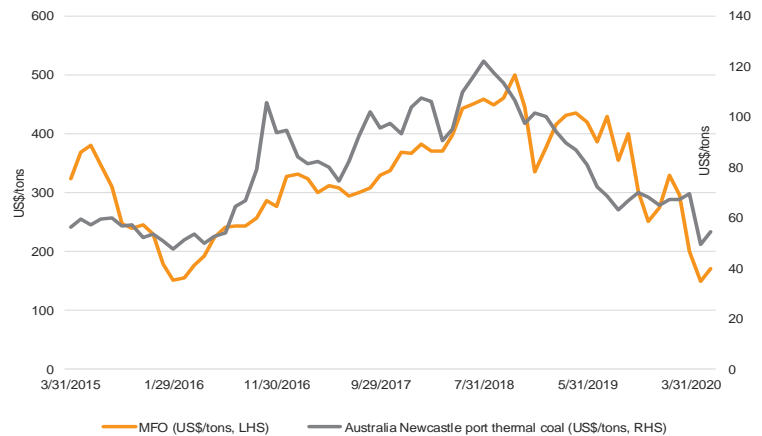
- Unclear price transfer policy in PPA contracts: imported coal prices are different from Vinacomin’s coal prices; and there have not been any clear regulations on how to settle the coal costs between EVN and thermal plants.

Figure 31: Coal import plan for the long term



Source: VNDIRECT RESEARCH, MoIT

Figure 32: MFO and Australia thermal coal prices



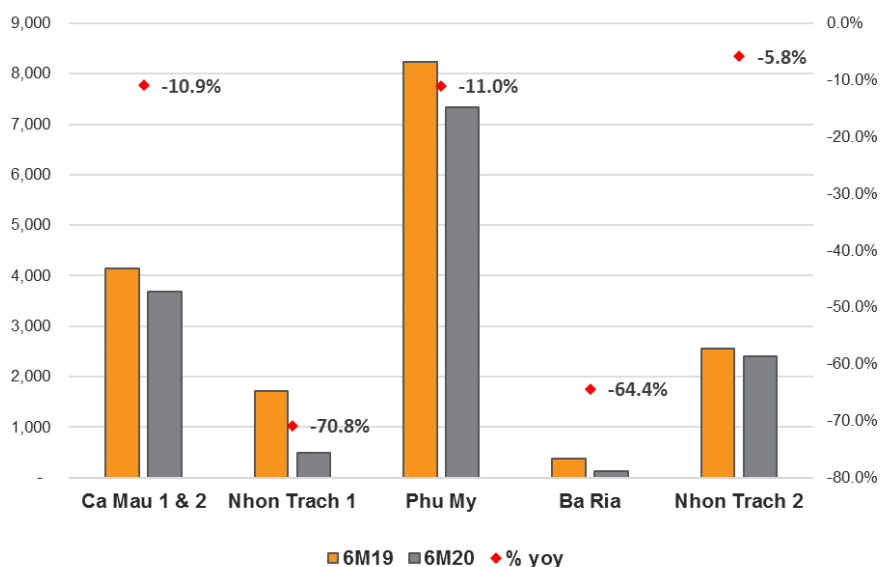
Source: VNDIRECT RESEARCH, Bloomberg

Gas shortage remains a major challenge for all gas-fired power plants

According to the ERAV, Vietnam now has 7,200MW in gas-fired capacity, accounting for 16% of the system’s total capacity. The Southeast area has 10 power plants with total capacity of 5,700MW, while the Southwest area has two power plants with total capacity of 1,500MW. The capacity of gas-fired power plants is expected at nearly 9,000MW in FY20F, jumping to 19,000MW in FY30F.

To operate those power plants, the gas demand is estimated at around 8.5-9.5bcm. Meanwhile PVGAS, the only gas supplier, can only delivery 6.5-7.5bcm in FY20-23F due to the deterioration of block 6.1 and 11.2 in Nam Con Son basin and delayed in developing new gas field & pipeline projects. Hence some major gas-fired power plants in southern region could suffer disruptions in operation, leading to significant fall in electricity output.

Figure 33: Lower output due to gas shortage among power plants



Source: VNDIRECT RESEARCH

Sufficient gas supply is a top priority to ensure energy security. Besides waiting for the development of new gas fields, importing LNG could be an answer for gas shortage in the long term. Hence, PV GAS and EVN plan to import LNG, similar to how the system is dealing with the coal shortage problem. The imported volume is estimated at 3m tons in FY25F and 10m tons in FY30F.

Several LNG terminal projects include:

- LNG Thi Vai terminal: capacity of 1-3m tonnes/year
- LNG Son My terminal: capacity of 3-6m tonnes/year
- LNG Dong Nam Bo terminal: capacity of 4-6m tonnes/year

New incentive schemes for Solar and Wind power

By the end of 2019, total installed capacity of renewable energy (RE) was 9.75% of total national capacity, including 4,696MW of solar power, 377MW of wind power, 325MW of biomass and 10MW of solid waste. Notably, solar and wind energy generation jumped 7.7 times to 6.1bn kWh in 2019 from 0.79bn kWh in 2018.

The solar power segment is waiting for a new price mechanism. Under MoIT's Decision 9608/BCT issued on 16 Dec 2019, the licensing of new solar projects has been stopped. Besides, power transmission lines now facing overloads limit the capacity of new solar units. Based on MoIT's latest proposal, the FIT (Feed-in-tariff) for solar power stands at US¢7.09/kWh (VND1,631/kWh) for onshore projects, and US¢7.69/kWh (VND1,769/kWh) for offshore projects. These are much lower than the original FIT of US¢9.35/kWh (VND2,151/kWh) (Decision 11/QD-TTg dated 11 Apr 2017).

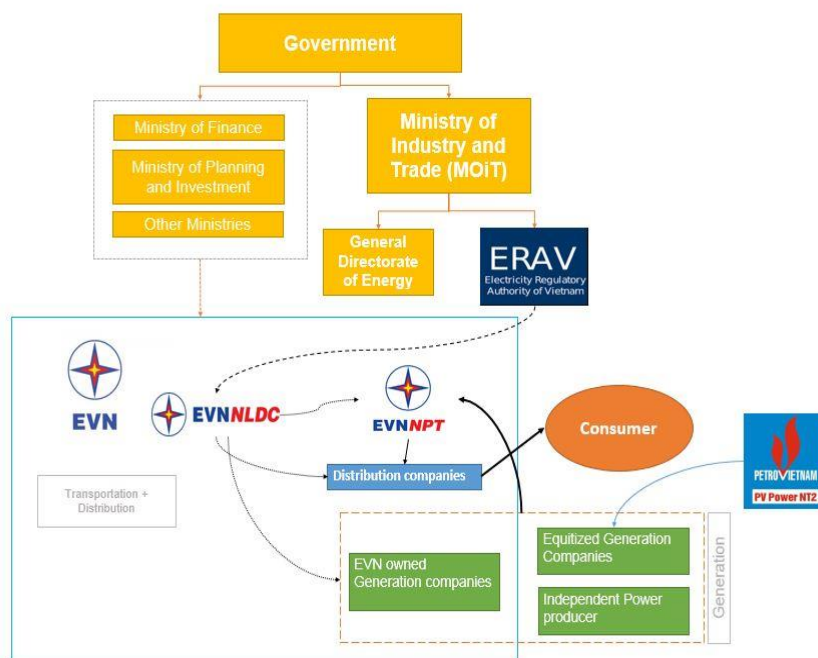
The wind power segment has a new selling price according to Decision 39/2018/QD-TTg issued on 10 Sep 2018. The selling price is US¢8.5/kWh for onshore projects and US¢9.5/kWh for offshore projects, above the old price of US¢7.8/kWh. The total cost of levelised cost of energy (LCOE) is converted cost of energy production including the total costs incurred during the operation. Accordingly, the LCOE is US¢7.0/kWh, therefore a new selling price is more attractive to the investors. Besides, investment cost in wind turbines has been reduced, which is also an attractive point.

By the end of August 2020, total capacity of approved wind and solar power sources amounted to nearly 23,000MW (of which, solar power is about 11,200MW; wind power is about 11,800MW). Up to now, 113 renewable projects with total capacity of 5,700MW have been put into operation thanks to EVN's great efforts to complete the power transmission infrastructure. However, there is still a big challenge ahead when many renewable projects have been added into the national power development plan, est. 17,000MW, putting a great pressure on EVN's electricity transmission facilities.

Market operation

The retail prices of electricity are regulated strictly by the Vietnamese government. The market is dominated by the state-owned-enterprise Electricity Vietnam (EVN), which is supervised by the Ministry of Industry and Trade (MoIT). In the generation market, EVN is a single-buyer; and power transmission and distribution systems are exclusively operated by subsidiaries of EVN. However, the Vietnamese retail electricity market is in transformation from a monopolistic market to the competitive electricity market since October 2013.

Figure 34: Vietnam's electricity market structure



Source: VNDIRECT RESEARCH

Relevant Stakeholders

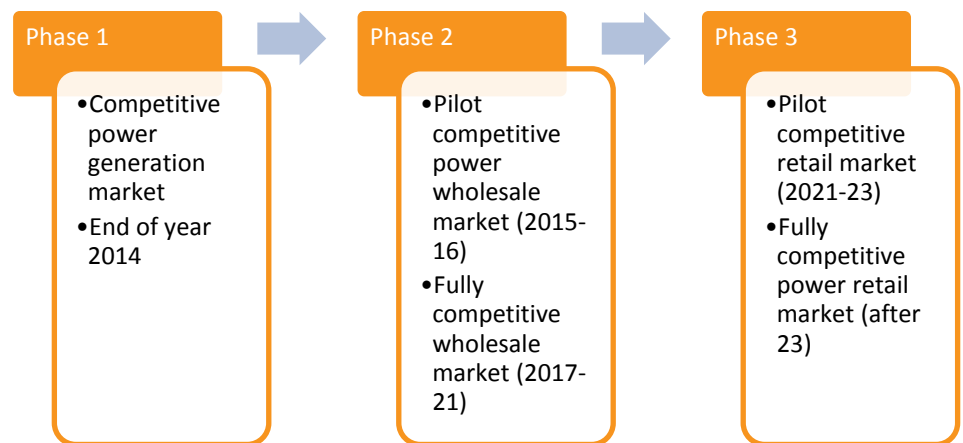
- GDE/MoIT: The General Directorate of Energy (GDE) is the energy department of the MoIT and is responsible for strategy and policy formulation regarding national development and planning of each energy sub-sector nationwide, and the formulation of legal documents within the energy industry. GDE strives to ensure a rational economic structure in manufacturing, trade, investment, import & export, business joint ventures and associations in the energy sector. Therefore, it implements industry strategies and development plans.
- Electricity Regulatory Authority of Vietnam (ERVA) is the national electricity regulator, who regulates the power market, including the supervision of electricity pricing and monitoring of supply and demand balances.

- Electricity Vietnam (EVN) is the main SOE in the power sector, dominating the electricity market. EVN alone holds shares of about 50% of total output in the electricity generation market. In the wholesale market, it has a monopolistic position as a single-buyer through its subsidiary National Power Transmission Corporation, and distributes more than 90% of electricity in the retail market.
- Electricity Power Trading Company (EVN/EPTC) has the function of purchasing electricity from all generators and wholesales to electricity distribution companies.
- National load dispatch center (EVN/NLDC) is responsible for planning the operation of the electricity system.
- National Power Transmission Corporation (EVN/NPT) is responsible for the development and operation of the nationwide power transmission system.

EVN is organised as a General Company with a series of subsidiaries, which included 7 regional power companies (PCs) – in charge of power transmission and distribution from 110kV downwards. EVN's generation and grid development plans and all major investment projects must be approved by the Government. The retail electricity tariff is also tightly regulated by the government, with adjustments recommended by the MoIT and requiring approval by the Prime Minister.

Power generators in Vietnam are mostly owned by three stated-owned corporations which are EVN, Petrovietnam (PVN) and Vinacomin. Besides there are BOT (build-operate-transfer) and IPP (Independent power producers) power plants.

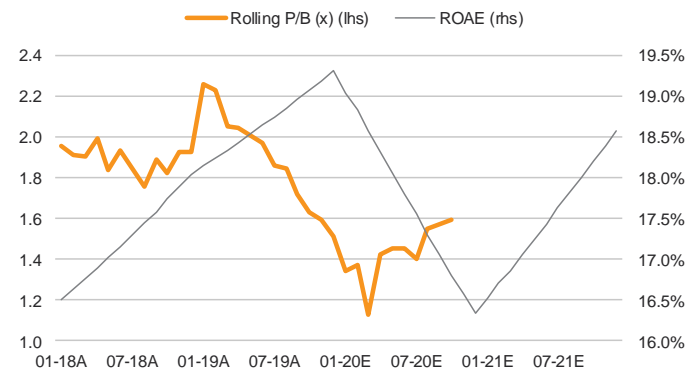
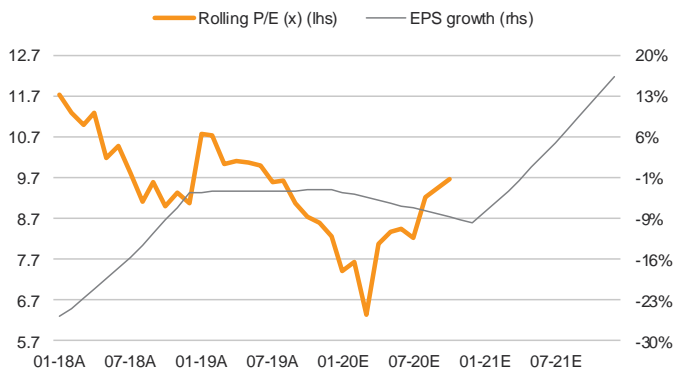
The competitive electricity market



A competitive generation market was introduced in 2012. MoIT issued a regulation on the operation of the market, whereby all power plants with a designated capacity of more than 30MW and connections to the national grid must participate. The only exceptions are Build Own Transfer (BOT) plants, wind power plants and other renewable power plants.

Currently the electricity market is still operating at Phase 2. In Phase 1, EVN/EPTC is the only buyer in the market, however in Phase 2 there are five more companies participating in the purchase of electricity with EPTC. Then Phase 3 will begin piloting in 2021, in which the CGM allows electricity retailers to buy electricity directly from generators. When operating in Phase 3, the government owned only EVN/NPT while other entities are equitised.

By 2018, 90 power plants joined the CGM with total capacity of 23,054MW (accounted for 52.6% Vietnam's capacity). Total electricity output traded on the market reached 106.5bn kWh (accounted for 48.4% total Vietnam's output).

Valuation

Income statement

(VNDbn)	12-20E	12-21E	12-22E
Net revenue	7,152	7,869	8,071
Cost of sales	(6,229)	(6,870)	(7,043)
Gen & admin expenses	(99)	(101)	(102)
Selling expenses	0	0	0
Operating profit	825	898	926
Operating EBITDA	1,520	1,592	1,619
Depreciation and amortisation	(695)	(694)	(693)
Operating EBIT	825	898	926
Interest income	14	14	14
Financial expense	(150)	(102)	(106)
Net other income	30	30	30
Income from associates & JVs			
Pre-tax profit	719	840	864
Tax expense	(36)	(46)	(45)
Minority interest	0	0	0
Net profit	683	794	819
Adj. net profit to ordinary	683	794	819
Ordinary dividends	(576)	(720)	(921)
Retained earnings	107	75	(102)

Balance sheet

(VNDbn)	12-20E	12-21E	12-22E
Cash and equivalents	164	280	530
Short term investments	200	200	200
Accounts receivables	2,007	2,166	2,244
Inventories	265	291	299
Other current assets	316	315	340
Total current assets	2,953	3,253	3,613
Fixed assets	4,193	3,505	2,818
Total investments	0	0	0
Other long-term assets	0	0	0
Total assets	7,146	6,758	6,431
Short-term debt	1,142	650	300
Accounts payable	825	555	751
Other current liabilities	939	1,237	1,165
Total current liabilities	2,906	2,443	2,216
Total long-term debt	0	0	0
Other liabilities	1	1	1
Share capital	2,879	2,879	2,879
Retained earnings reserve	1,219	1,293	1,191
Shareholders' equity	4,239	4,315	4,214
Minority interest	0	0	0
Total liabilities & equity	7,146	6,758	6,431

Cash flow statement

(VNDbn)	12-20E	12-21E	12-22E
Pretax profit	719	840	864
Depreciation & amortisation	695	694	693
Tax paid	(36)	(46)	(45)
Other adjustments	(57)	7	12
Change in working capital	(311)	(148)	15
Cash flow from operations	1,009	1,347	1,540
Capex	(8)	(7)	(6)
Proceeds from assets sales	1	2	1
Others	0	0	0
Other non-current assets changes	(14)	(14)	(14)
Cash flow from investing activities	(21)	(19)	(19)
New share issuance	0	0	0
Shares buyback			
Net borrowings	(700)	(492)	(350)
Other financing cash flow			
Dividends paid	(576)	(720)	(921)
Cash flow from financing activities	(1,276)	(1,212)	(1,271)
Cash and equivalents at beginning of period	451	164	280
Total cash generated	(287)	116	250
Cash and equivalents at the end of period	164	280	530

Key ratios

	12-20E	12-21E	12-22E
Dupont			
Net profit margin	9.5%	10.1%	10.1%
Asset turnover	0.97	1.13	1.22
ROAA	9.3%	11.4%	12.4%
Avg assets/avg equity	1.76	1.63	1.55
ROAE	16.3%	18.6%	19.2%
Efficiency			
Days account receivable	99.1	96.8	97.8
Days inventory	15.6	15.5	15.5
Days creditor	48.5	29.5	38.9
Fixed asset turnover	1.58	2.04	2.55
ROIC	12.7%	16.0%	18.1%
Liquidity			
Current ratio	1.0	1.3	1.6
Quick ratio	0.9	1.2	1.5
Cash ratio	0.1	0.2	0.3
Cash cycle	66.2	82.8	74.4
Growth rate (yoy)			
Revenue growth	(6.6%)	10.0%	2.6%
Operating profit growth	(7.1%)	8.9%	3.1%
Net profit growth	(9.4%)	16.3%	3.1%
EPS growth	(9.4%)	16.3%	3.1%

Source: VND RESEARCH

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RECOMMENDATION FRAMEWORK

Stock Ratings

Definition:

Add	The stock's total return is expected to reach 15% or higher over the next 12 months.
Hold	The stock's total return is expected to be between negative 10% and positive 15% over the next 12 months.
Reduce	The stock's total return is expected to fall below negative 10% over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings

Definition:

Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

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