HAI PHONG THERMAL POWER JSC (UpCOM:HND)

Patience pays off

Hai Phong Thermal Power (UpCOM: HND) possesses many strengths because of its young power units, competitive investment outlays and efficient operations. Supplying about 7% of the North's load and 3.7% of the country's total electricity consumption, HND has a high gross profit margin and a moderate coal consumption rate compared to peers. In addition, strict compliance with the maintenance schedule and management of other operating costs also contribute to HND's financial stability.

HND has benefited from the current hydrological conditions. High mobilization capacity and contract output are the profit growth drivers in the medium term. Especially in the last years of accelerating depreciation and debt repayment, increasing operating capacity helped bring in cash flows. As a result, HND paid its debts on time, reduced interest expenses and exchange rate losses while still having high profits to pay cash dividends.

*Using the EV/EBITDA, FCFF and P/E valuation methods, we determine the fair value of HND at **VND 22,900** per share. With a cash dividend of VND 1,200 per share, the total expected return for investors is **32%**, equivalent to a **BUY** recommendation. Trading on Upcom with a highly concentrated shareholder structure has limited its liquidity. However, we believe that once SCIC completes the divestment and the company is on a listed exchange, its liquidity will improve and the motivation for a price increase will be more prominent.*

Investment Rationale

- Variable cost remains stable owing to modern factories. The power purchase mechanism paves the way for HND's profitability
- Fixed cost is under control via maintenance schedule compliance. Depreciation reduction will be an important determinant of future earnings
- Rapid debt payment is going to improve financial health in the long-term

Risk

- Business prospects for 2021 - 2022 are forecast to be less positive due to the high probability of La Nina coming back. NPAT is forecast to decline sharply in 2021, which may have a temporary impact on the stock price.

Key financial ratios

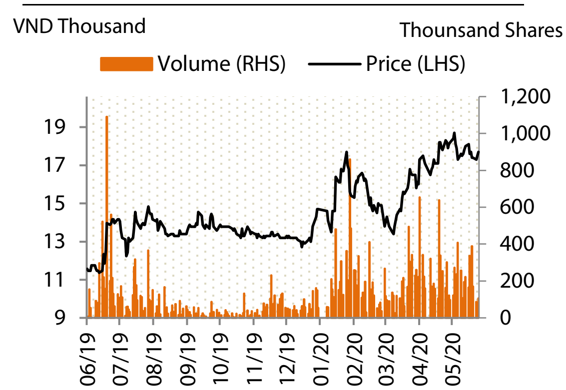
Y/E Dec (VND Bn)	FY2017	FY2018	FY2019	FY2020E	FY2021F
Net revenue	9,095	9,527	11,301	12,222	9,577
% growth	*-0.7*	*4.7*	*18.6*	*8.1*	*-21.6*
PAT	396	425	1,203	1,443	801
% growth	*37.7*	*7.4*	*183.2*	*20.0*	*-44.5*
Net profit margin(%)	*4.3*	*4.5*	*10.6*	*11.8*	*8.4*
ROA (%)	*2.5*	*2.9*	*9.1*	*11.7*	*7.1*
ROE (%)	*17.0*	*15.3*	*19.0*	*19.2*	*10.2*
EPS (VND)	723	765	2,322	2,743	1,522
BV (VND)	10,371	11,385	12,459	14,674	14,696
Cash dividend (VND)	0	650	1,600	1,200	1,500
P/E (x)	16.1	4.3	7.3	6.2	11.1
P/BV (x)	1.2	0.9	1.8	1.6	1.6

Source: HND, RongViet Securities

BUY	+ 32%
Market price (VND)	18,200
Target price (VND)	22,900
Cash Dividend (VND)*	1,200

** Expected in the next 12 months*

Stock Info	
Sector	Utilities
Market Cap (VND Bn)	9,000
Share O/S (Mn)	500
Beta	0.6
Free Float (%)	14.0
52 weeks high	19,000
52 weeks low	11,668
Average trading volume (20 sessions)	189,131



Performance (%)

	3M	1Y	3Y
HND	18.9	49.9	135.4
Utilities	7.2	-20.8	-0.3
UpCOM Index	11.3	1.9	-1.1
VN-Index	14.6	9.7	11.5

Major shareholders (%)

GENCO2	47
PPC	20
SCIC	15
Foreigner investor remaining room (%)	*49*

Trinh Nguyen
(084) 028- 6299 2006 – Ext 1551
trinh.nh@vdsc.com.vn

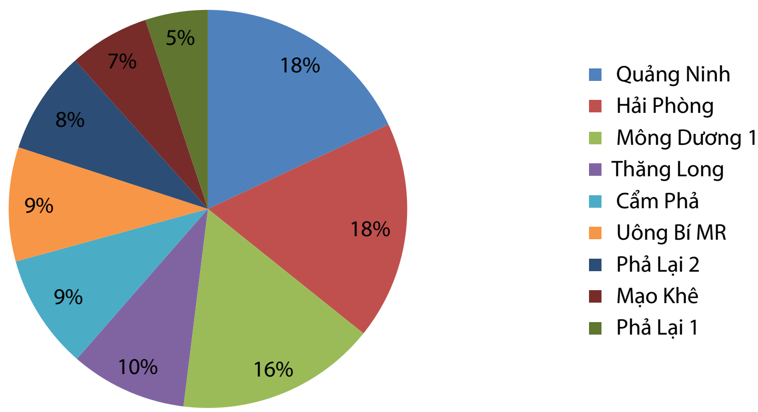
INVESTMENT RATIONALES

Variable cost remains stable owing to modern factories. The power purchase mechanism paves the way for HND's profitability

High efficiency because of modern factories

Hai Phong Thermal Power plant use turbines from Marubeni (Japan) and Dongfang's boiler (China). This allows HND to enjoy low investment outlay compared to the common ground of coal power plants with a capacity of about 1,200 MW built in the same period. Hai Phong Thermal Power's average capex is about VND 18.3 billion per MW, only higher than Quang Ninh Thermal Power (VND 17.8 billion per MW). Meanwhile, HND achieves the same fuel consumption as the more expensive units do.

Figure 1: Output guidance from thermal power plants in the Hanoi- Hai Phong- Quang Ninh regions



Source: A0, RongViet Securities

The Hai Phong Thermal Power is a coal-fired power plant located in the economic triangle of Hanoi - Hai Phong - Quang Ninh. Planning to supply more than 8 billion kWh in 2020, HND accounts for about 18% of the share of thermal power plants directly participating in the electricity market in this region, the second highest. HND will be running at a 85% load factor in 2020. In the period of 2019-2020, almost all thermal power plants directly participating in the market (except Nhon Trach 1 Thermal Power Plant) run as baseload, many of which have a load factor of over 80% to compensate for the shortage of electricity in the Northern hydroelectric plants and providing electricity to the North-Central-South transmission line. According to EVN's data, in 2019, the country's commercial electricity output reached 221.4 billion kWh, of which HND provided about 3.7%.

Table 1: Power plants' details

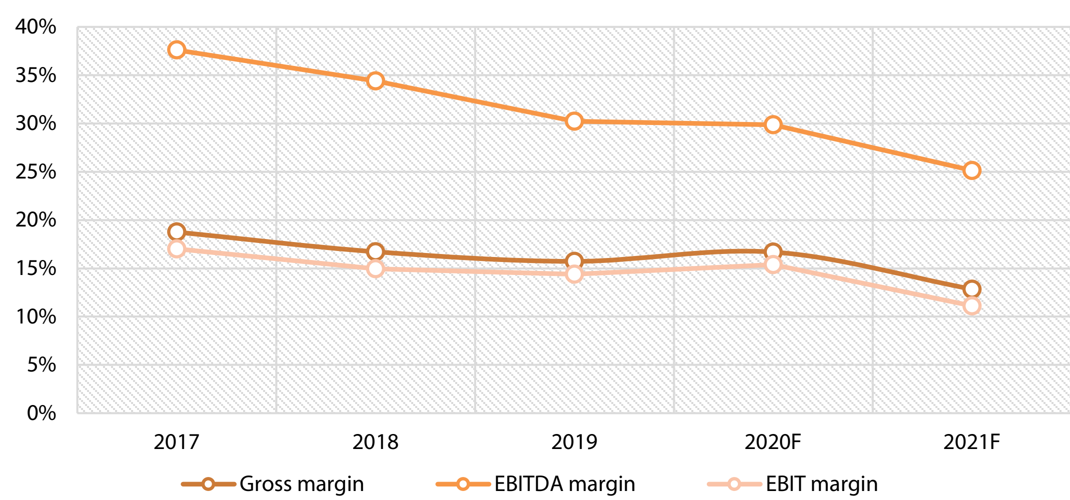
Plant	Capacity (MW)	Investment value (VN billion)	Capex (VND billion per MW)	Owner	COD	Turbine manufacturer	Boiler manufacturer
Hải Phòng 1	600 (2x300)	22,000	18.3	HND	- Phase 1: 11/2011 - Phase 2: 07/2011	Marubeni (Japan)	Dongfang (China)
Hải Phòng 2	600 (2x300)				02/2014		
Quảng Ninh 1	600 (2x300)	21,400	17.8	QTP	2010	SEC (China)	SEC (China)
Quảng Ninh 2	600 (2x300)				2013 & 2014		
Phả Lại 1	440 (4x110)	N/A	N/A	PPC	1984	Russia	Russia
Phả Lại 2	600 (2x300)	N/A	N/A		2001	General Electric (US)	General Electric (US)
Mông Dương 1	1080 (2x540)	37,400	34.6	PGV	2015	Hyundai E&C (Korea)	Hyundai E&C (Korea)
Vĩnh Tân 2	1244 (2x622)	23,500	18.9		2015	SEC (China)	SEC (China)
Vũng Áng 1	1200 (2x600)	28,800	24.0	POW	2014 & 2015	Toshiba (Japan)	Babcock & Wilcox Beijing (China)

Source: Rong Viet Securities

The performance remained relatively stable

HND is able to maintain profit margin from core operations based on its strengths of low investment cost, modern machinery, reliable operating techniques and periodic repair activities. Figure 2 shows the stability of the gross and EBIT margins.

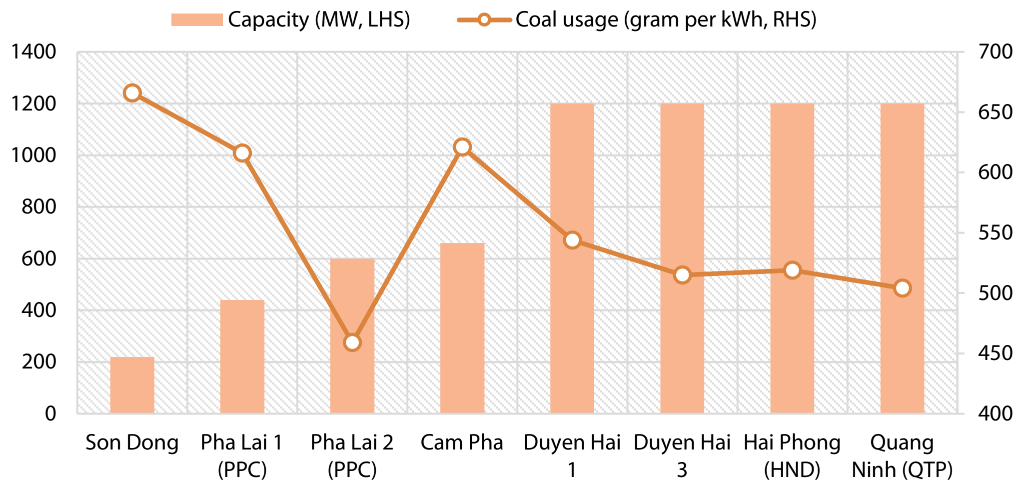
Figure 2: Gross margin, EBITDA margin and EBIT margin



Source: HND, Rong Viet Securities

***Low coal consumption is an advantage*.** HND is in the group of large capacity plants with relatively low coal consumption (Figure 3). This is also an advantage as HND is one of only two power plants in the region with a designed capacity of 1,200 MW (the other one is Quang Ninh Thermal Power Plant - QTP).

Figure 3: Coal usage (g/kWh)

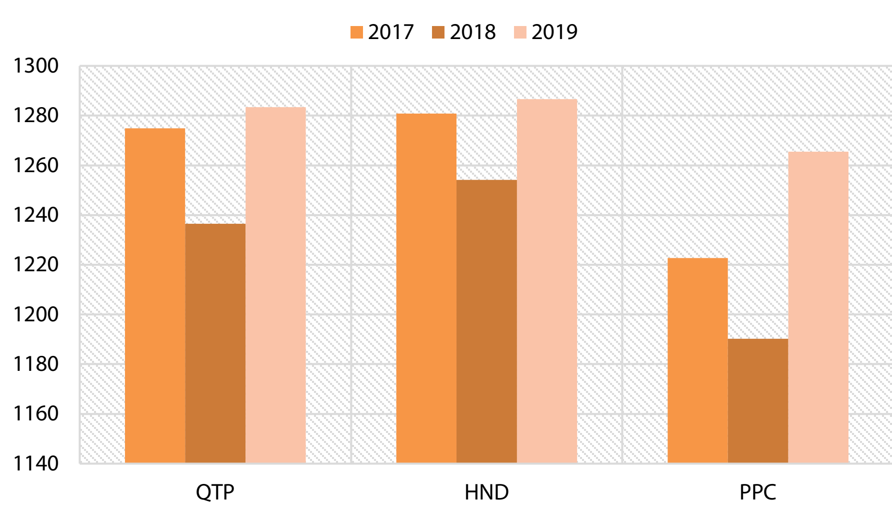


Source: Rong Viet Securities

The current mechanism of electricity trading is an important factor to stabilize profit margin in the long term. The fact that EVN is a monopsonist in the generation market will help power plants avoid most of the impacts from material price fluctuations. Specifically, HND signed a contract to supply coal for the entire project life cycle (until 2042) with Vinacomin (TKV) and signed a contract with Dong Bac for five years. In recent years, the cost of raw materials (mostly coal) accounted for a stable level of 65-70% of the cost of goods per kWh of commercial electricity, equivalent to about VND 832-863 / kWh, except for 2019 which was 964 dong / kWh due to a shortage of domestic coal. We expect this consumption level to be maintained below VND 1,000 in the next two years, based on the assumption that coal price will increase by 2% per year.

Because HND is speeding up debt repayment, it does not have many advantages in paying suppliers in advance to reduce the amount of mixed coal received. In contrast, management said that the modern machinery enables efficient operation to stabilize coal consumption regardless of the coal mixture used. Thus, even under unfavorable conditions for thermal power plants, HND will still have the opportunity to maintain high capacity in both contractual power generation as well as be competitve.

Figure 4: Cost per kWh from large coal-fired power plants (VND)



Source: Rong Viet Securities

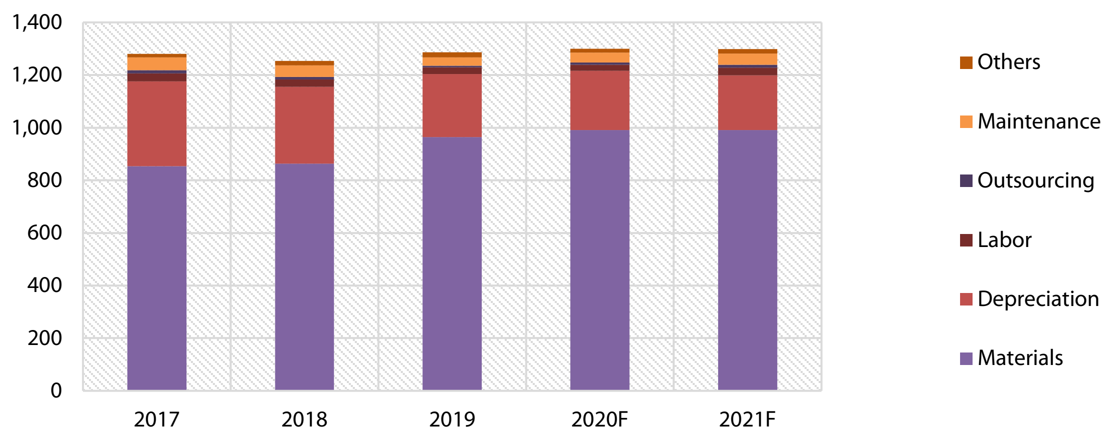
Fixed costs are controlled via major overhaul operations while reducing depreciation expenses is an important growth driver.

Major repair activities are well controlled, contributing to cost stability

Because the four units are similar in specifications, the repair schedule and cost of maintenance are quite stable over the years. Therefore, HND's fixed costs do not fluctuate too much, contributing to stable profits.

According to management, the four units of similar quality will overhaul over a four-year cycle, each overhaul will last 61-70 days. In addition, the units will be replaced for similar maintenance cycles, and the unit will be serviced every 30 days for seven days. As such, it is estimated that the major repair cost per year will be about VND 280 billion and can remain steady. In 2020, HND will overhaul unit 2 and service unit 4, the estimated cost is equivalent to 2019. Accordingly, major repair costs will account for about 4% of the cost price, equivalent to the last three years.

Figure 5: Cost of sales per kWh

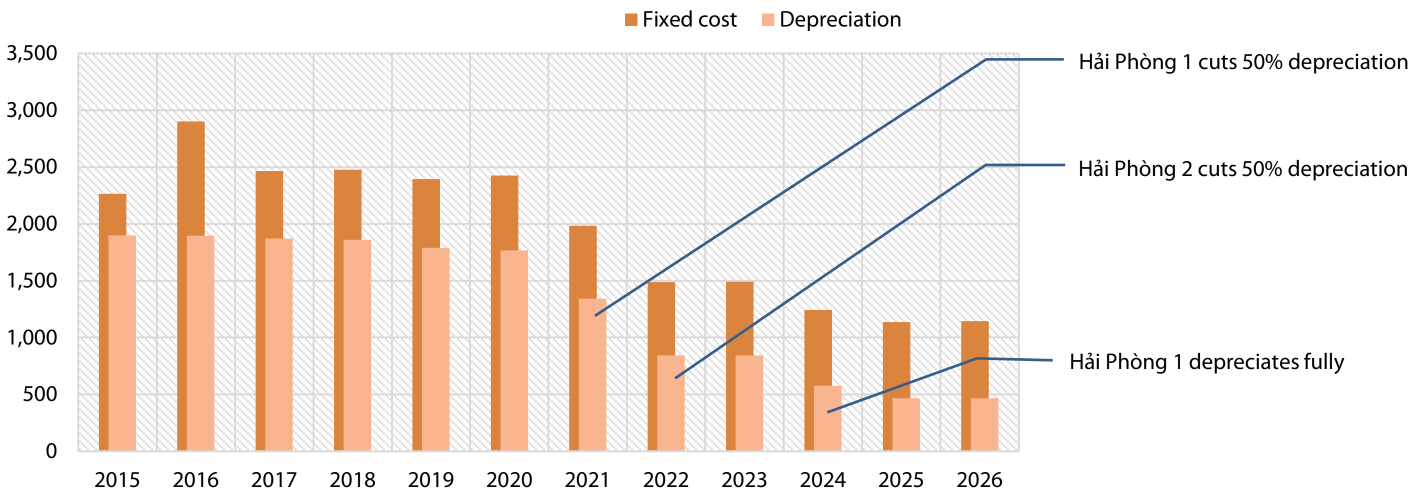


Source: HND, Rong Viet Securities

Gross profit will be cushioned in the coming period by scheduled reduction of depreciation expenses

Since fully operating (2015), HND has stepped up depreciation to retain cash flow to pay off its debt and will slow down depreciation when the loan balance decreases. According to the schedule, the Hai Phong 1 factory will reduce its depreciation by 50% from 2021 and will be fully depreciated in 2024. The Hai Phong 2 factory will reduce depreciation by 50% from 2022 (Figure 6). Thus, when there is no longer a need to retain a large amount of cash for financial obligations, the depreciation reduction will help improve profits. We estimate that HND's fixed asset depreciation expenses will decrease by VND 500 billion in 2021 and VND 425 billion in 2022. Under the assumption that La Nina's climate returns in 2021 causing low mobilization, the reduction of fixed costs will help cushion HND's bottom-line.

Figure 6: Fixed assets' depreciation

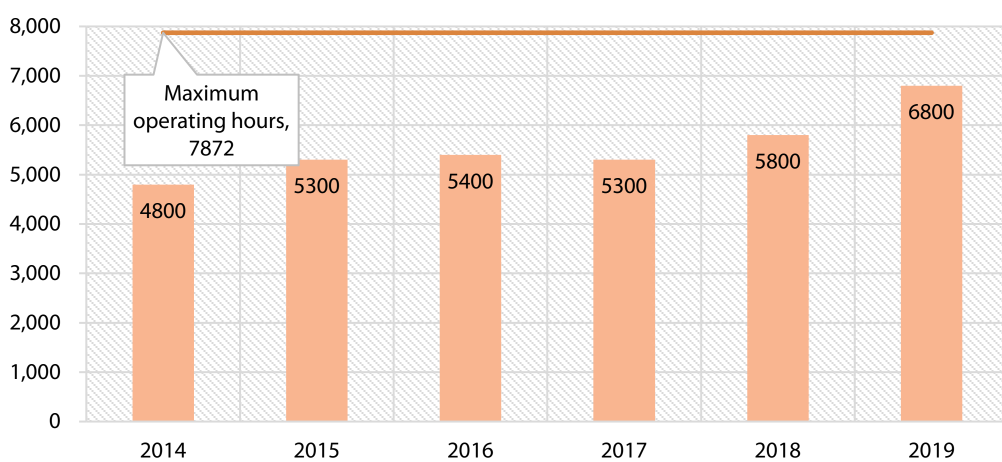


Source: HND, Rong Viet Securities

Production growth in the medium term may be limited due to 2019 being a very dry year

It is noticeable that despite its high capacity, HND's mobilization rate during 2014-2017 was low (Figure 7). Due to favorable hydrological situation for hydropower, the demand for thermal power was not growth-accommodating. On average, during the period of 2013-2018, HND only reached 5,000 hours per year in operating hours.

Figure 7: HND's operating hours per year



Source: HND, Rong Viet Securities

According to HND's 2020 business plan, the target of 7,000 power generation hours is equivalent to an output of about 8.2 billion kWh. Thus, the growth over the same period is minimal as it is approaching the maximum capacity. In addition, if La Nina returns next year, the demand for thermal power will mostly decrease.

On the other hand, as 2020 output remains similar compared to 2019, HND can justify its ability to generate profit. This is the first time since listing for HND to operate at 7,000 hours for two consecutive years. Thus, we believe that 2020 will be a very important time for HND as well as potential shareholders, as HND goes through the challenge of maintaining profitability.

Table 2: HND's business results at different operating levels

	5,300 hours (2015-2017)	6,800 hours (2019)	7,000 hours (2020F)
Commercial volume (million kWh)	6,180	7,422	7,834
Revenue (VND billion)	9,121	11,301	12,222
EBIT (VND billion)	1,428	1,626	1,881
Operating cash flow (VND billion)	697	2,513	2,541

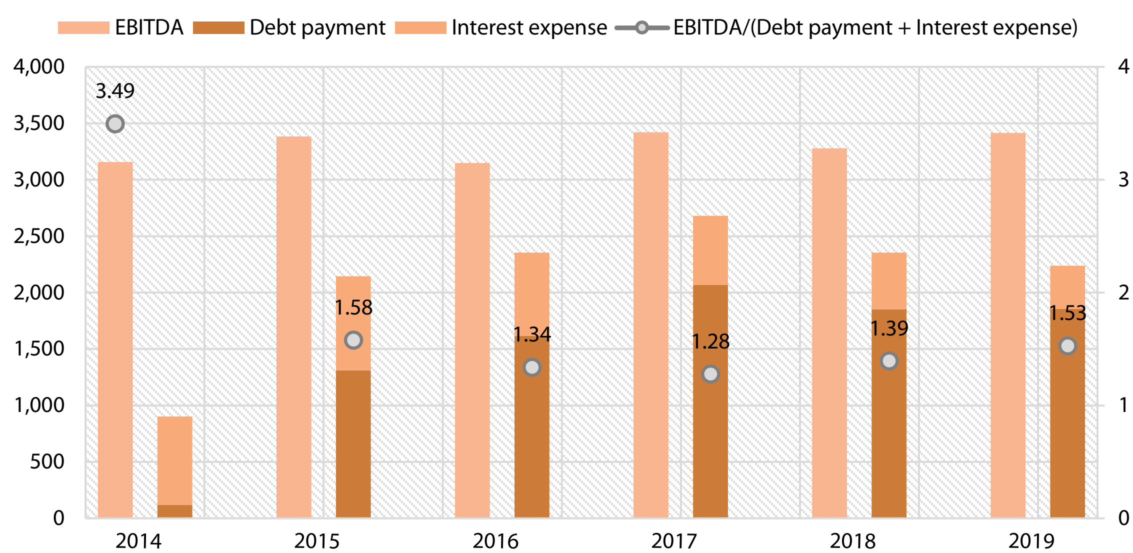
Source: Rong Viet Securities

The speedy debt repayment improves financial health for the long term

HND is currently in the last years of debt repayment. Among the long-term loans, the two largest amounts will be fully repaid in 2021 and 2024 respectively. In 2020 and 2021, on average, HND will repay about VND 1,800 billion of debt and interest annually. From 2022 to 2024, on average HND will repay about VND 900 billion annually.

Along with the average depreciation of approximately VND 1,800 billion per year, HND's debt-service coverage ratio has gone up gradually, allowing the company to speed up debt repayment. After units 1 and 2 are fully depreciated in 2021, depreciation will be reduced to over VND 800 billion in 2022 - 2024. HND is going to pay off all long-term debts in 2024.

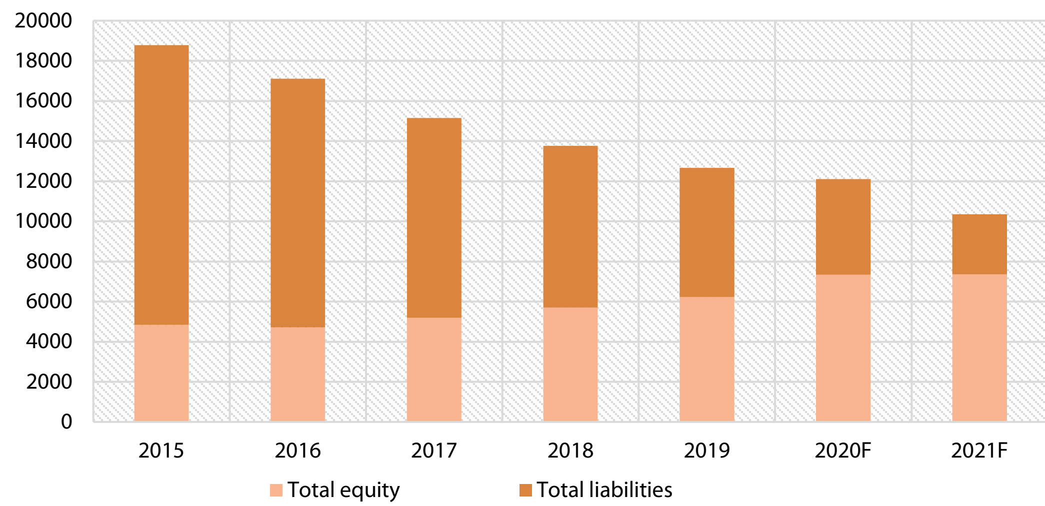
Figure 8: Debt repayment ratios (LHS: EBITDA, Debt payment, Interest expenses, RHS: EBITDA/(Debt payment + Interest expense))



Source: HND, Rong Viet Securities

Solvency becomes increasingly solid as a result of speedy debt repayment

Figure 9: Capital structure (VND billion)



Source: HND, Rong Viet Securities

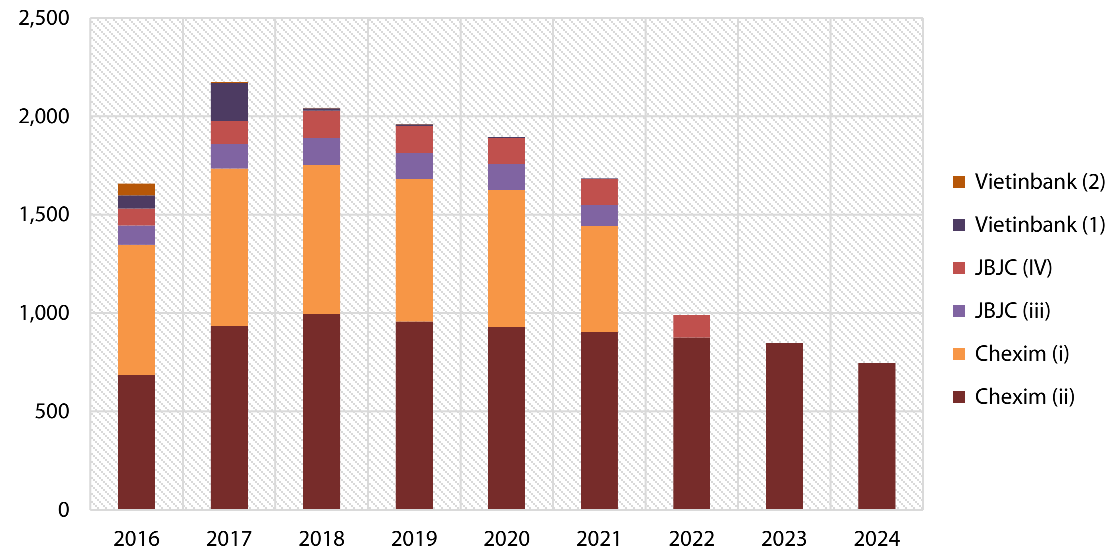
Consequently, HND's capital structure is becoming leaner. In 2015, nearly three-quarters of its assets were financed by loans, while by the end of 2019 this rate decreased to one-half. This ratio will decrease continuously and is expected to be only one-fifth by the end of 2022. Moreover, parts of HND's long-term debt are due in twelve months, hence categorized as short-term debts. Thus, once HND pay off all debts in 2024, its short-term debt will likely become zero, making the company debt-free.

In addition to improving the balance sheet, HND will also sharply reduce interest expenses over the next three years. According to our calculations interest expenses will be are around VND 400 billion in 2020, down to VND 250 billion in 2021 and only VND 91 billion in 2022. By 2023, HND's interest expenses will decrease to a negligible level.

Additionally, reducing debt will allow HND to reduce exposure to FX risks. In the past, unrealized forex losses associated with JPY and USD loans used to shave off a significant part of HND's income. Similar to interest expenses, exchange rate losses are expected to decline sharply over the next three years. Specifically, we forecast that exchange rate losses will decrease to VND 91 billion in 2020 and VND 63 billion in 2021.

On the other hand, exchange rate losses incurred during the year will usually be reverted after three years as revenue. Therefore, this will partly offset the cost of exchange rate difference for businesses. According to the plan, in 2020 HND will record a revenue of VND 98 billion, which is the exchange rate loss made in 2017, just enough to neutralize exchange rate risks.

Figure 10: Debt payment schedule (VND billion)



Source: HND, Rong Viet Securities

Reducing depreciation, paying off debts and abundant cash flows are signaling annual cash dividends in the future

HND has been accelerating depreciation to have cash flow in order to reduce debt since starting operations. In the last five years, HND depreciated yearly an average of nearly VND 1,900 billion for a total of VND 22,000 billion of tangible fixed assets. This is equivalent to the depreciation of buildings and structures for 14 years and the depreciation of machinery for 11 years, relatively fast compared to the life cycle of a power plant.

In compensation, business results in the next five years will be supported by a slowdown in depreciation. Specifically, HND will reduce 50% of depreciation expenses of Hai Phong 1 in 2021, then reduce 50% depreciation expenses of Hai Phong 2 in 2022. We estimate that HND will reduce asset depreciation by VND 425 billion in 2021 and VND 500 billion in 2022. In 2024 the Hai Phong 1 factory will only have depreciation in the first two months of the year, and the depreciation expense for the whole year will decrease by 267 billion over the same period.

However, it should be noted that electricity's contract prices will go down along with depreciation cuts. Upon renegotiating prices for the last half of the generator cycle, Hai Phong 1 will see its ASP lowered in 2021, and Hai Phong 2 will in 2024. We notice that the Hai Phong 2 plant will cut down depreciation in 2022 but its selling price will be reduced in 2024. Accordingly, HND's turnover could be VND 250 billion higher each year in 2022 and 2023.

Cutting depreciation reduction is expected to cushion from a profit drop. Especially in 2021 and 2022, we expect that the return of La Nina will cause HND to reduce its utilization rate, so lowering depreciation expenses plays an important role to prevent profit from falling too much. We expect that the period of 2022-2024 will still see HND's earnings climb upward.

Free cash flow for equity holders will improve in the long term and even increase after all debts are paid off. In the period of 2020-2021, we forecast that the free cash flow before paying debt of HND will reach 2,500 billion and 2,200 billion respectively. Free cash flow after debt repayment will reach 770 billion and 540 billion. In the period of 2022-2024, every year HND will generate about VND 1,600 billion of free cash flow before debt repayment and over 800 billion of free cash flow after debt repayment on average. In general, in the next five years, HND can afford to pay VND 1,000 per share cash dividend. After the aforementioned five years, the debt repayment activity will have ended. We estimate that each year HND will be able of bringing about VND 1,600 billion in cash flow for its equity holders, which is an abundant source of cash to pay dividends of at least VND 2,000 per share every year.

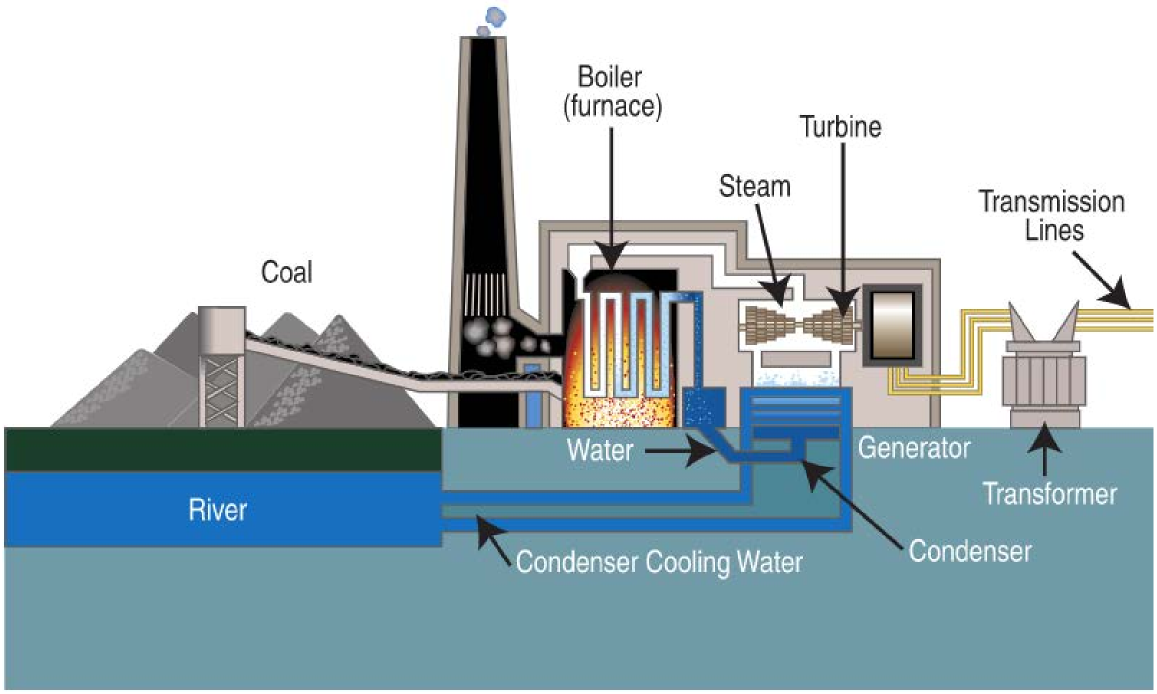
RISKS

HND has been enjoying a strong performance because of El Nino's impact during 2019-2020 and is forecasted to face more challenges during 2021-2022 due to the high probability of La Nina coming back. NPAT is expected to be hit in these two years and may have a temporary impact on the stock price. However, as a young, high-capacity power plant in the Hanoi - Hai Phong - Quang Ninh economic cluster, we emphasize HND's ability to operate effectively in the long term. Its operating cash flow is healthy and continuously improving, allowing for an increase of the cash dividend payout. We estimate that HND's dividend payment may be up to at least VND 2,000 per share after the company pays off all debts in 2024. Therefore, regardless of profit growth in the intermediate term, HND is still a suitable stock for long-term investors.

COMPANY OVERVIEW

Hai Phong Thermal Power is a power generation project started in 2002 by five founding shareholders. It has two phases. The Hai Phong 1 factory consisting of two units (2x300MW) and the Hai Phong 2 Factory with two units (2x300MW) connected to the national grid since 2009 to 2014 respectively. The Hai Phong Thermal Power is in charge of providing from 6 to 7.5 billion kWh per year for the national electricity system, equivalent to 7% of the Northern electricity consumption or 3.7% of the country's total electricity consumption.

Figure 11: A typical coal-fired power generator

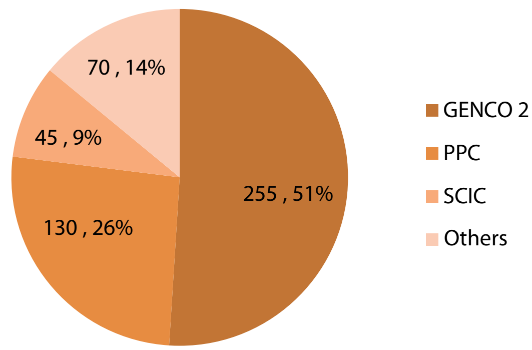


Source: Rong Viet Securities

Despite having been trading on UpCOM since 2016, HND still keeps a highly concentrate shareholder structure. Since then, there were two times SCIC registered to sell, the first time in 2016 with a VND 12,800 starting price, the second time in 2017 with a VND 11,300 starting price. All divestments were unsuccessful because the starting prices were significantly higher than the market price at the time.

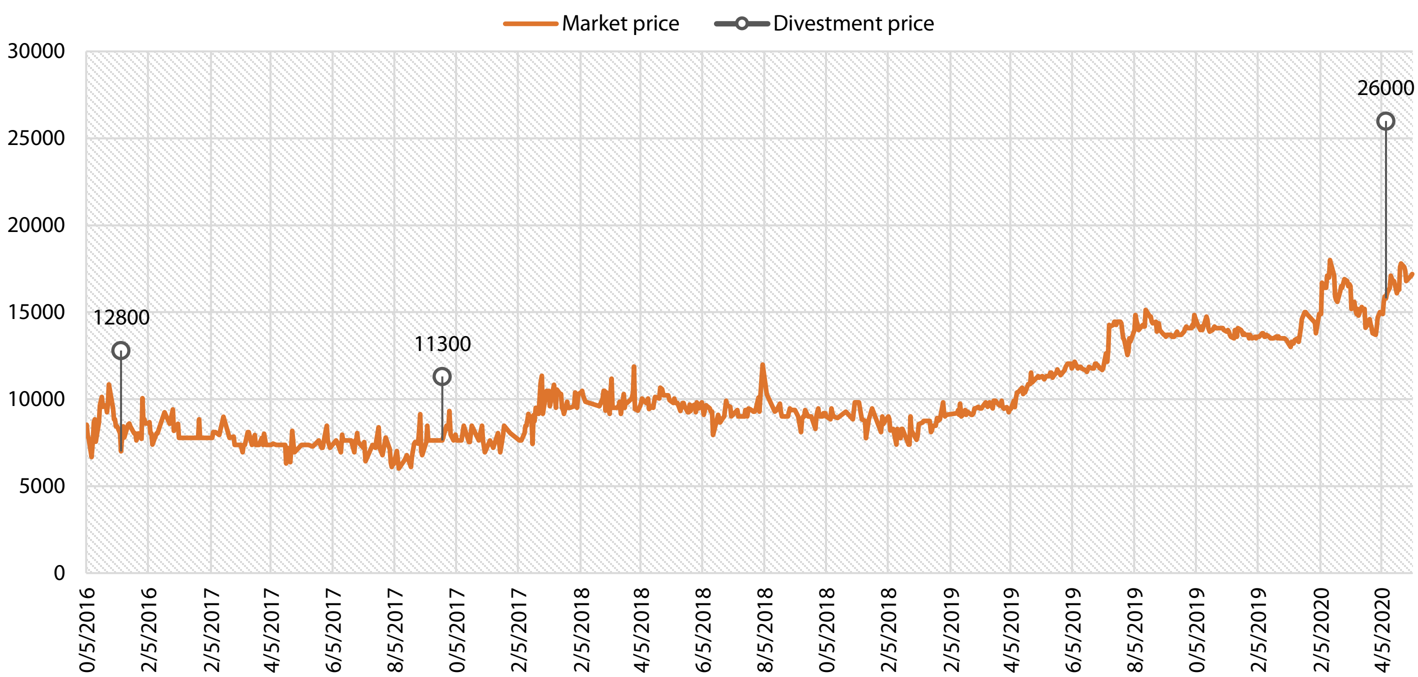
HND has recently announced the plan to list (on either HSX or HNX) but has not been able to do so due to restrictions on the shareholder structure. Meanwhile, SCIC has announced the divestment of 45 million shares, equivalent to about 9% of its ownership in HND by auctioning the whole lot with the starting price of VND 26,000. Similar to previous divestments, the starting price is considerably higher than the market price, making the divestment incomplete so far.

Figure 12: HND's shareholder structure (million shares)



Source: HND, Rong Viet Securities

Figure 13: SCIC's divestment timeline



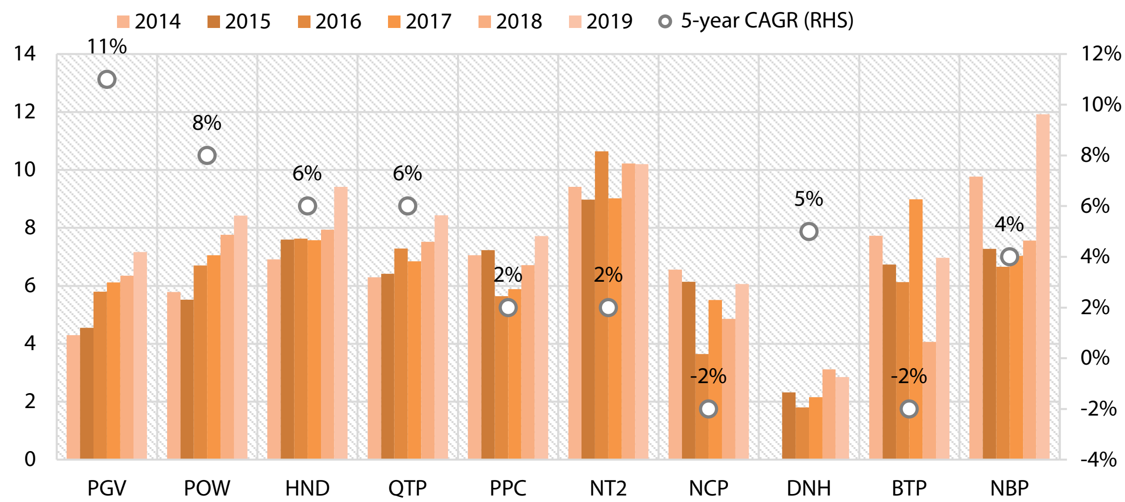
Source: HND, Rong Viet Securities

FINANCIAL ANALYSIS

Growth

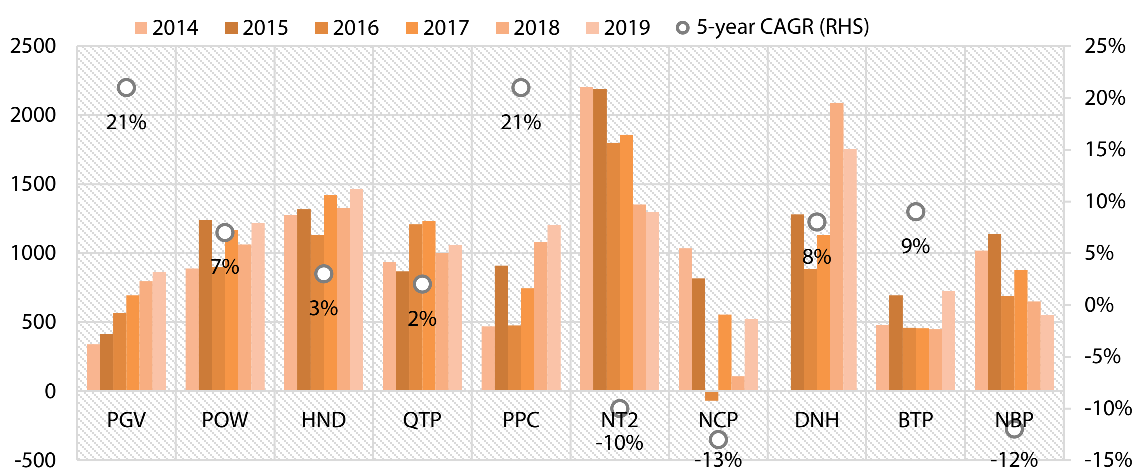
Revenue growth depended heavily on EVN's mobilization schedule. Since both factories operated fully, HND has been operating for less than 5,800 hours/year, except for 2019 (6,800 hours). This can be explained by hydrology, because the water level of hydropower plants in the North was stable, the demand for coal power mobilization was not large, especially in the period 2016-2017 with the stable plants such as PPC, NCP and NBP (Figure 14). Therefore, the average revenue growth per MW capacity of the coal-fired power units in the last five years was not high. HND and QTP were groups of power plants that have been fully operational since 2014, hence they achieved good growth over each year, with a compound growth rate of 6% during the period 2014-2019.

Figure 14: Revenue per 1 MW for large listed power plants (VND billion)



Source: Rong Viet Securities

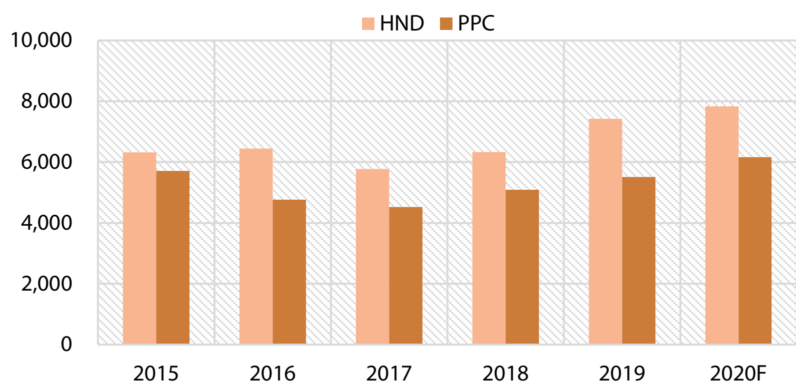
Figure 15: Gross profit per 1 MW from large listed power plants (VND billion)



Source: Rong Viet Securities

In terms of gross profit growth, HND saw no significant 5-year growth, mainly limited by output and revenue. However, we like HND's stability compared to its peers. From figure 15, except for PGV (GENCO3) owning a diverse power plants portfolio, almost all individual plants did not achieve a stable growth trend in gross profit. Another group, POW, even though it consolidated many factories, it did not improve gross profit per 1 MW of capacity. HND, when compared to QTP, with the same capacity and plant life, the gross profit per unit of capacity is higher.

Figure 16: PPC and HND's volume (million kWh)

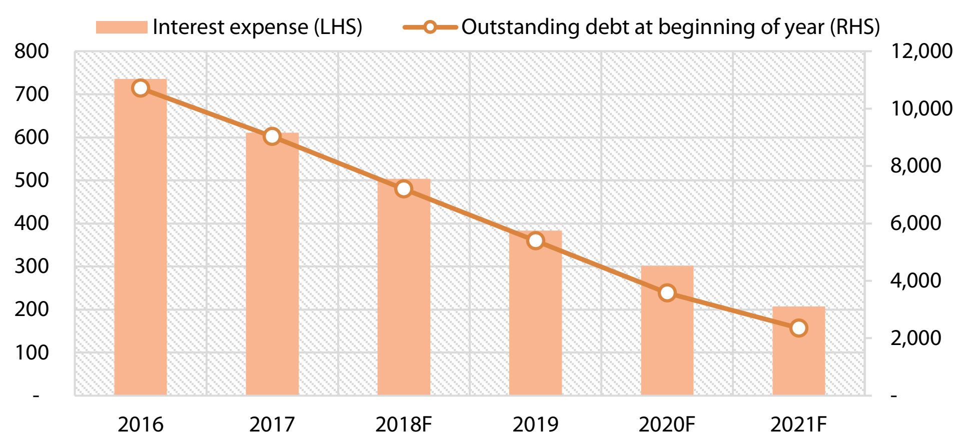


Source: Rong Viet Securities

Financial activities

Interest expenses are falling sharply due to debt reduction. Almost all power plants used very high leverage to invest in construction, causing high interest rates in the first years, HND was no exception. Since the full operation year of 2015, HND has started to reduce debt quickly, interest expenses have also gradually decreased each year, reducing the pressure on profits. In 2020, with the repayment schedule of more than VND 1,800 billion, interest expenses will also decrease by 21% YoY, forecasted at VND 301 billion (Figure 17). The ability to pay interest in 2020 is forecasted to reach 4.7x.

Figure 17: Interest expenses and outstanding debt (VND billion)



Source: Rong Viet Securities

Interest rate risk is not much as most loans are in foreign currencies at fixed rates. The only floating interest rate loan was VND 320 billion from Vietinbank. Accordingly, for every one percentage point increase in the deposit rate for 12 months, HND's interest expenses will increase by VND 3.2 billion/year. We believe that the impact on profit is negligible. Additionally, given the current economic situation and recent comments from the State Bank as well as Commercial Banks, the possibility of raising deposit rates is relatively low. Our banking analysts forecast interest rates even lower, given the current context.

Exchange rate risk also affects HND's profit, including realized exchange rate risk of the debt paid in the year and unrealized exchange rate risk of the remaining debt. As HND has paid off most of its debt, and the realized exchange rate loss will be retroactive in the future, we believe that exchange rate fluctuations will not erode too much profit even if the VND depreciates more than expected.

Table 3: NPAT's sensitivity to exchange rate

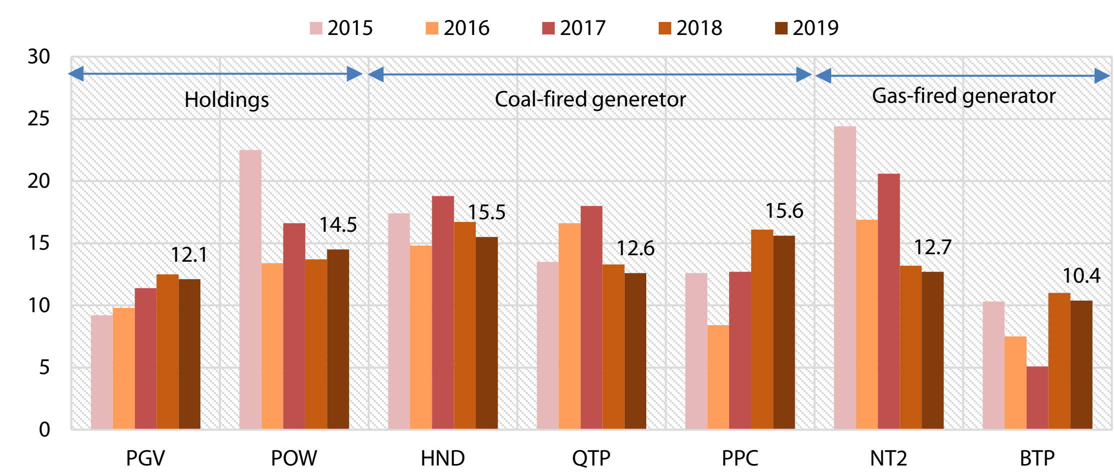
% change in NPAT compared to forecast		JPY/VND exchange rate				
		+0%	+1%	+2%	+3%	+4%
USD/VND exchange rate	+0%	+7.0%	+6.6%	+6.2%	+5.8%	+5.4%
	+1%	+3.9%	+3.5%	+3.1%	+2.7%	+2.3%
	+2%	+0.8%	+0.4%	+0.0%	-0.4%	-0.8%
	+3%	-2.3%	-2.7%	-3.2%	-3.6%	-4.0%
	+4%	-5.5%	-5.9%	-6.3%	-6.8%	-7.2%

Source: Rong Viet Securities

By the end of 2019, USD and JPY outstanding loans will be around USD 200 million and JPY 2.6 billion, equivalent to VND 539 billion and VND 4,539 billion. We estimate that in 2020 the VND will depreciate 2% against USD and JPY, equivalent to a loss of VND 98 billion for HND.

Operating efficiency

Figure 18: Listed thermal power plants' gross margin (%)



Source: Rong Viet Securities

Looking at gross margin, we realize that HND's operating efficiency remains stable and at a high level versus listed thermal power plants. NT2 and BTP have gas turbines and profit margins that are highly dependent on gas prices. Coal-fired power plants such as HND, QTP and PPC have similar gross margins. Among these three companies, only HND maintained a gross profit margin of 15-20% for four of the last five years. In the last three years HND was also the thermal power plant with the highest gross profit margin. For coal power plants with the same age and capacity as QTP, HND dominated productivity and stability.

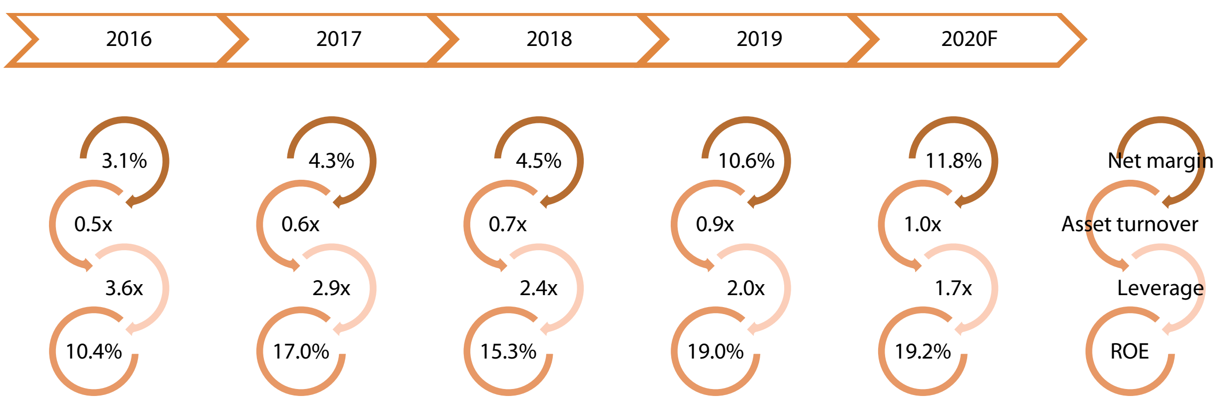
Coal price also has a great influence on HND's business results as the cost of materials accounts for 75% of COGS. In 2019, the electricity market has somewhat experienced sensitivity of the gross margin to coal prices, although the impact was insignificant. Coal is a natural resource banned from export. the domestic selling price is regulated by the Ministry of Industry and Trade. Additionally, coal producers mainly purchase raw materials from two sole companies, TKV or Dong Bac, both state-owned. Therefore, it can be said that raw material prices are not floating like other basic commodities and not as volatile as world prices. This means the opportunity to speculate on material prices is relatively small. For the electricity sector, most OF the output is covered, only the share of volume sold on CGM is at risk of affecting profit margins. As mentioned, operating on CGM offers HND the opportunity to make profit by operating efficiently. As part of the increase in raw material prices will be transferred to the electricity price/offering price, we believe that the increase in coal price does not impact much HND's profit.

We assume a 1% increase in coal price will cause the market electricity price to increase by 0.5%. Then a 1% increase in coal price will cause a decrease of VND 2.8 billion to HND's gross profit. This level is negligible given HND's scale.

DuPont analysis

HND's ROE has largely improved by reducing debt, while electricity production has brought about a stable performance. The EBIT margin has been relatively stable over the years, ranging from 13.7% to 17.0% in the last five years. Meanwhile, total asset turnover improved sharply thanks to increasing generation capacity and continuous debt repayment to reduce total assets. The repayment schedule also helped to significantly reduce financial leverage. As a result, the ROE has strongly improved from 6.0% in 2016 to 20.2% in 2019. We forecast that ROE will continue to improve in the coming years owing to the speedy repayment of debt.

Figure 19: DuPont ratios



Source: Rong Viet Securities

Table 4: Dupont ratios

DUPONT	2015	2016	2017	2018	2019	2020F
EBIT / Sales	16.3%	13.7%	17.0%	14.9%	14.4%	15.4%
Sales / Total assets	0.48	0.54	0.60	0.69	0.89	1.01
Interest expenses / Total assets	4.4%	4.3%	4.0%	3.7%	3.0%	3.3%
(A/E) x (1-t)	3.89	3.45	2.75	2.29	1.93	1.57
ROE = {(1) x (2) - (3)} x (4)	13.5%	10.4%	17.0%	15.3%	19.0%	19.2%

Source: Rong Viet Securities

FORECAST

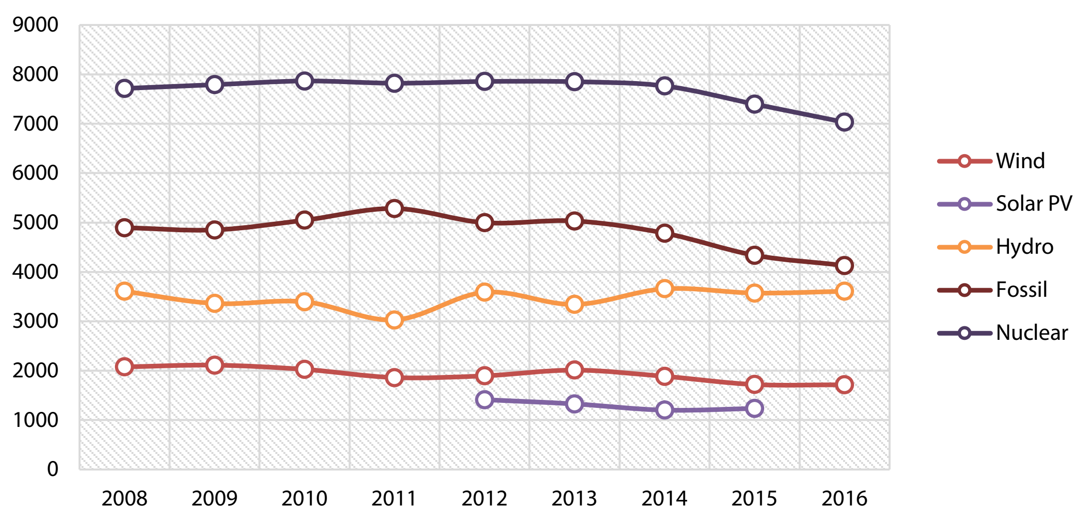
Table 5: 2020 forecast

	Unit	2019	2020F	5-year average (2017 – 2021F)	%YoY
Output	million kWh	7,422	7,834	6,756	6%
In which: Qc	million kWh	5,624	5,993	5,600	7%
Average selling price	VND per kWh	1,507	1,540	1,523	2%
Material cost	VND per kWh	964	990	932	3%
Revenue	VND billion	11,301	12,222	10,629	8%
Gross profit	VND billion	1,777	2,039	1,846	15%
Financial revenue	VND billion	34	38	34	13%
Financial expense	VND billion	397	400	611	1%
Interest expense	VND billion	383	302	375	-21%
FX loss	VND billion	14	98	236	600%
PBT	VND billion	1,265	1,519	1,107	20%
NPAT	VND billion	1,203	1,443	1,051	20%

Source: Rong Viet Securities

In 2020, we forecast that HND will reach 7,000 hours of operating hours, achieving the business plan. The estimated commercial output is about 7.8 billion kWh, only increasing by 2.6% compared to 2019. As mentioned, we think that the operating capacity was already maxed out at 6,840 hours in 2019. Meanwhile, referring to China's electricity market, we found that HND's operating capacity was significantly higher than the industry average. Operating 7,000 hours per year, in theory is almost full capacity.

Figure 20: Power plants' operating hours in China (hours per year)



Source: China Electricity Committee, Rong Viet Securities

Given that 2020 Qc is higher than 2019, we believe that the Qc/Qr ratio will be at 75% (76% in 2019). Contract price will increase slightly by 3.9% YoY, forecasted at VND 1,585 / kWh. The market electricity price is forecasted at VND 1,395, lower than last year by 3.8% mainly due to the annual CAN price decreasing from VND 141 to VND 64 / kWh. In short, the average electricity price will improve slightly by 2.2% yoy to VND 1,540 / kWh.

HND's revenue is expected to reach VND 12,222 billion in 2020, up 8.1% over the same period. This includes revenue received from exchange rate differences in 2017 and is estimated at VND 156 billion.

The gross profit margin in 2020 will improve to 16.7% compared to 15.7% in 2019 because of the increase in utilization rate. The average cost price is estimated at VND 1,184 / kWh, almost unchanged over the same period due to a decrease in depreciation per kWh, offsetting other costs, including fuel and auxiliary costs. Major repair costs is forecasted at VND 295 billion.

Interest expenses are going to increase slightly to VND 400 billion, in which, interest expenses will go down by 21% due to debt reduction. On the contrary, unrealized forex loss will be VND 94 billion, a sharp increase compared to last year because we forecast that the VND will depreciate against USD and JPY this year, while last year's FX loss was negligible.

SG&A expenses will increase slightly to VND 158 billion.

HND's after-tax profit in 2020 is forecasted at VND 1,457 billion, up 21.1% from 2019. This would be the highest level in history. Corresponding EPS is VND 2,743. Cash dividends paid to shareholders for 2020 can be up to 1,200 VND / share, equivalent to a dividend yield of 6.8%.

VALUATION

We combine the EV/EBITDA, FCFF and P/E methods to valuate HND's intrinsic value with a weight of 20%, 40% and 40% respectively.

For the EV/EBITDA valuation, we use a 4.75x multiple, which is a market-cap weighted average of the sector, adjusted by 10% as HND is trading on UpCOM. Accordingly, HND is valued at VND 25,412/share.

Regarding the FCFF valuation, we use a WACC of 9.3% and long-term cash flow growth of 0.3%. The FCFF valuation comes at VND 25,526/share.

For the P/E valuation, we use a 6.91x P/E multiple, equivalent to the market-cap weighted P/E of the sector, adjusted by 10% due to HND trading on UpCOM.

As a result, the target price for HND comes at VND 22,900, 26% higher than the closing price on 18/06/2020. Adding the expected dividend of VND 1,200/share in the next twelve months, the expected total return is 32%.

Table 6: Valuation matrix

Method	Valuation	Weight	Weighted average
EV/EBITDA	25,412	20%	5,082
FCFF	25,526	40%	10,211
P/E	18,943	40%	7,577
Total		**100%**	**22,900**

Source: Rong Viet Securities

Table 7: Industry peers

No	Ticker	P/E	P/B	EV/EBITDA	ROA 2019	ROE 2019	Assets/Equity	Market cap (VND billion)
1	BTP	4.79	0.71	5.93	9.39%	15.76%	1.63	874
2	PPC	6.14	1.30	6.45	17.72%	21.71%	1.22	7,743
3	NT2	7.06	1.29	4.56	9.19%	19.31%	1.83	5,326
4	NBP	7.58	0.60	3.94	5.39%	8.00%	1.43	154
5	QTP	8.25	1.10	3.49	5.58%	14.45%	2.24	5,370
	Average*	**6.76**	**1.00**	**4.87**	**9.45%**	**15.85%**	**1.67**	**3,893**
	HND	6.82	1.29	3.88	8.87%	19.72%	2.04	7,997.50

Source: Fiinpro, Rong Viet Securities (*) Market-cap weighted average

POWER SECTOR OVERVIEW

Long-term power consumption will be driven by the growth momentum of a developing country

Vietnam's electricity consumption has grown sharply in recent years in parallel with the country's industrialization process. We observed that the industrial and power generation indices moved in a similar manner in 2014-2019 (Figure 24). Especially since 2017, these two indices have been almost equal months over months. Moreover, both the industrial production and the electricity production indices remained above 100 for the last five years and increased sharply in 2017 and 2018. This is evidence that industrial activity contributed significantly to electricity consumption. We think this trend will continue in the future.

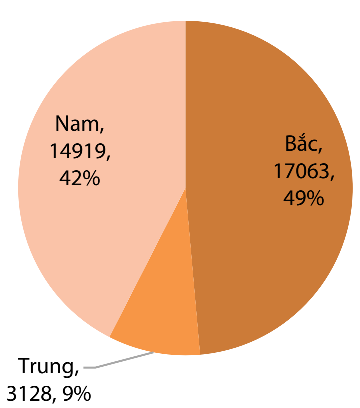
The driving force of electricity demand growth is also due to the relocation of factories to Southeast Asia in general and Vietnam in particular due to the impact of the world trade war, as well as to take advantage of Vietnam’s cheap labor, land and utilities. The disbursement of the bustling FDI sector since 2015 has pushed Vietnam's electricity consumption growth. As new projects under construction come into operation, it will positively impact demand (Figure 26).

In addition, income per capita growth and urbanization also contribute to the growth of electricity demand. Fitch Solutions forecasts that Vietnam's electricity demand per capita will reach 2,500 kWh / year in the next five years, an increase of 32% compared to 2019 (Figure 25).

All of these factors contribute to a sustainable demand for electricity consumption growth in Vietnam in the coming years. This also means that the demand for new construction of power plants will be considerable. It should be noted that a significant portion of the power plants in Vietnam have been operating longer than their projected life cycle and needs replacement. Besides, the topography of Vietnam as well as the geographical distribution of economic activities require transmission systems designed to meet many unique characteristics of both power generation and electricity consumption.

In the structure of load capacity, the North accounts for a half. Northern power consumption is also on the rise because of production activities in newly established industrial parks in the past few years. Meanwhile, EVN's power generation projects going into operation in the next five years are located in Central and Southern Vietnam. Thus, existing thermal power plants in the North, including HND, will be increasingly important, especially during the dry season and an El Nino-dominated climate.

Figure 21: Peak load in 2018



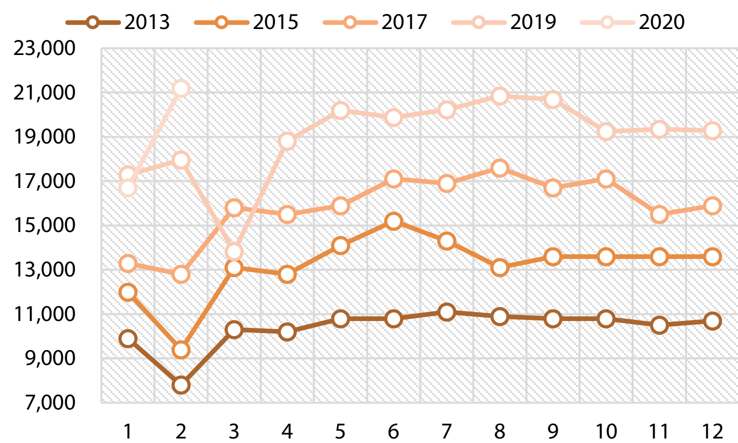
Source: EVN, Rong Viet Securities

Table 8: EVN’s project pipeline 2019-2025

	Project	Capacity (MW)	COD
1	TPP Duyên Hải 3 Expansion	1x660	2019
2	TPP Vĩnh Tân 4 Expansion	1x660	2019
3	ĐMT Sê San 4	49	2020
4	ĐMT Phước Thái 1	50	2021
5	HPP Ialy Expansion	2x180	2023
6	HPP Hòa Bình Expansion	2x240	2023
7	TPP Quảng Trạch 1	2x260	2023
8	Gas-Fired Combustion Ô Môn 4	1050	2023
9	Gas-Fired Combustion Dung Quất 1	750	2023
10	Gas-Fired Combustion Dung Quất 3	750	2024
11	Gas-Fired Combustion Ô Môn 3	1050	2025
12	HPP Trị An Expansion	200	2025
13	TPP Quảng Trạch 2	2x600	2025

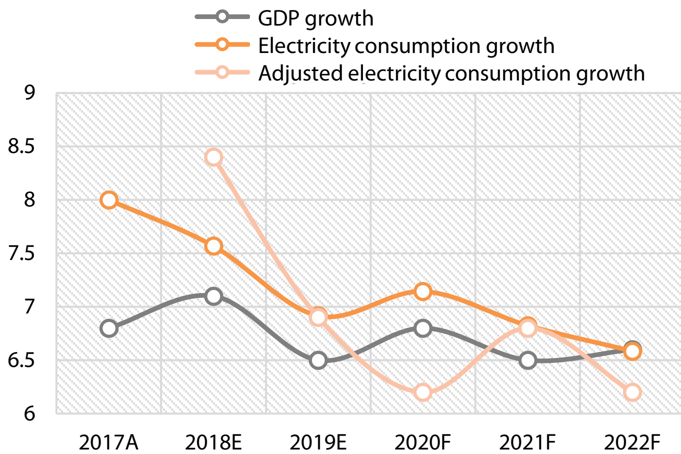
Source: EVN, Rong Viet Securities

Figure 22: Electricity production (million kWh)



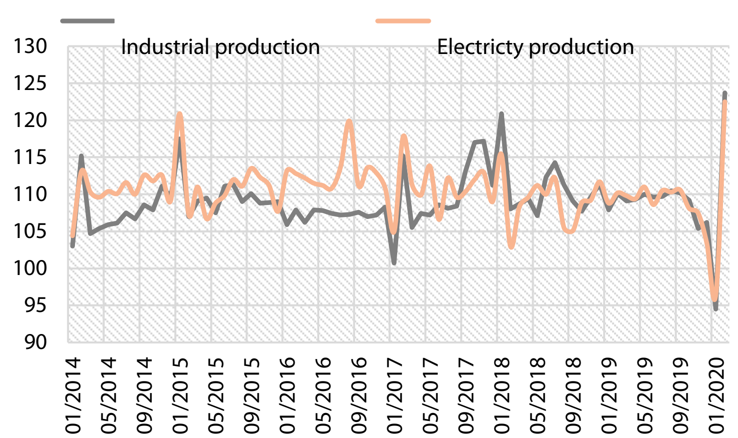
Source: GSO, Rong Viet Securities

Figure 23: Electricity demand forecast before and after COVID-19 breakout (% YoY)



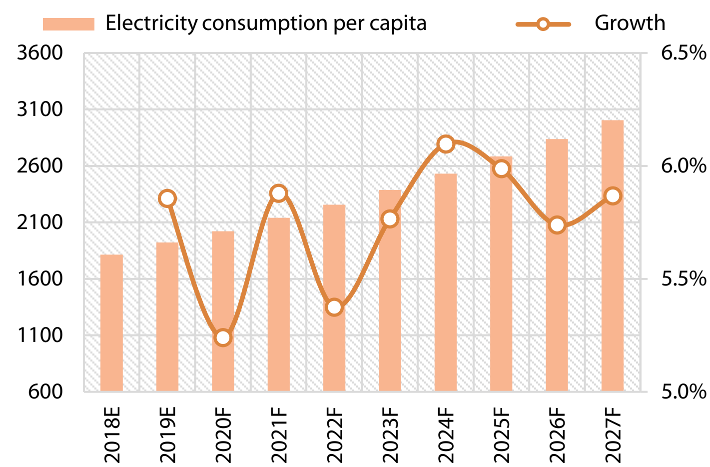
Source: Fitch Solutions, Rong Viet Securities

Figure 24: Industrial production and electricity production indices



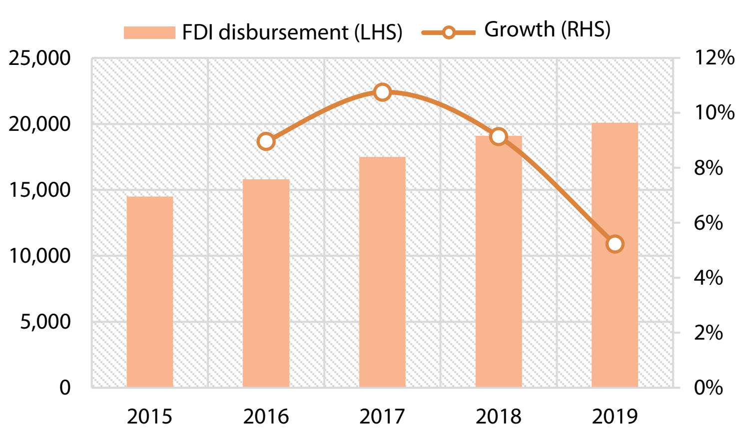
Source: GSO, Rong Viet Securities

Figure 25: Electricity consumption per capita



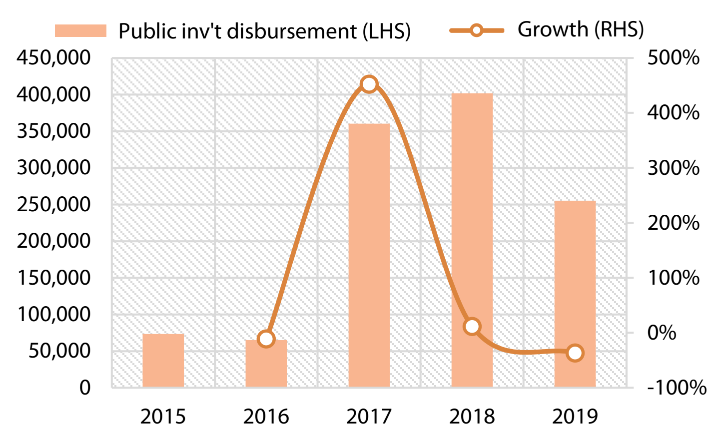
Source: Fitch Solutions, Rong Viet Securities

Figure 26: FDI disbursement (USD million)



Source: GSO, Rong Viet Securities

Figure 27: Public investment disbursement (VND billion)



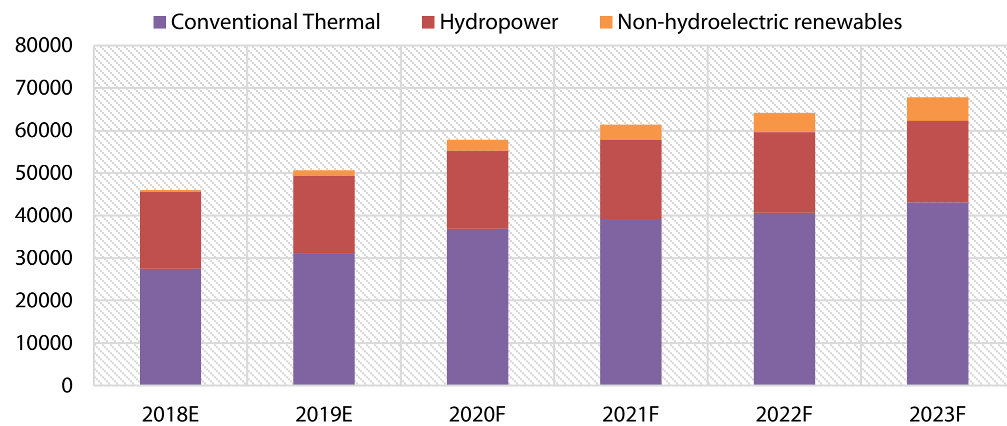
Source: GSO, Rong Viet Securities

Vietnam is still trying to solve the problem of dependence on hydroelectricity

Hydroelectric plants accounted for about 35% of designed capacity and 38% of total electricity production in 2019. This shows that Vietnam's electricity industry depends heavily on hydrological conditions. Additionally, this structure makes it difficult for power units to maintain a stable operating level. Besides, in unfavorable hydrological situation, electricity shortage is a risk.

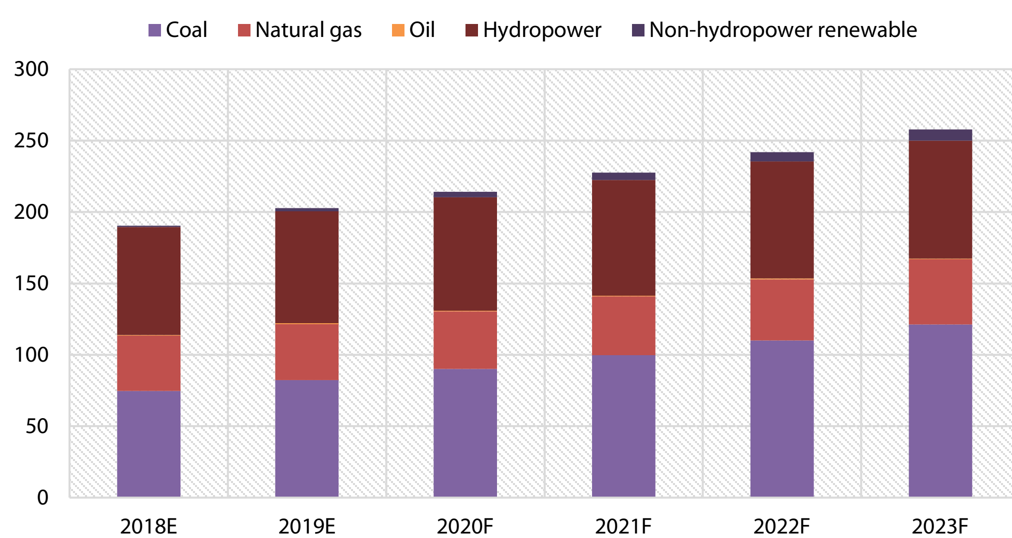
Meanwhile, the trend of investing in renewable energy has only risen in recent years due to the relatively attractive government subsidy policy. The majority of renewable energy projects are solar power and wind power with small capacity and they cluster in certain areas, causing infrastructure overload. All in all, thermal power is still a key contributor in the structure of future power generation.

Figure 28: Power generation structure (thousand MW)



Source: Renewable Energy Potential in Vietnam Report, Rong Viet Securities

Figure 29: Power generation structure per input (billion kWh)



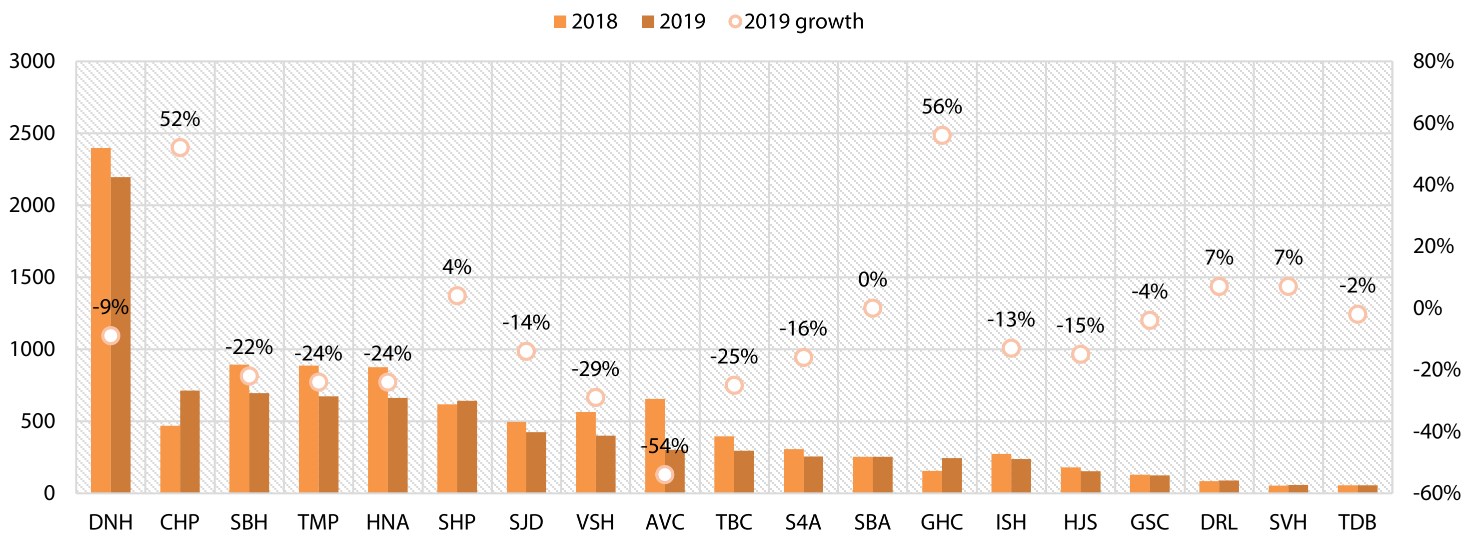
Source: Renewable Energy Potential in Vietnam Report, Rong Viet Securities

Coal-fired generators are currently the major supplier

Electricity shortage in the short and intermediate term results from the dependence on hydropower

In fact, 14 of the 22 listed hydropower plants reported declining revenue in 2019 compared to 2018. Despite the pressure of disbursement of power generation projects, the actual disbursement speed still failed to meet demand. Slow progress at important power projects took its toll in 2018 and 2019 when hydropower plants faced up difficulties due to lack of water.

Figure 30: Listed hydropower plants' revenue in 2018 and 2019 (VND billion)



Source: Rong Viet Securities

The water level of hydropower reservoirs was low in 2019 and will continue to be in 2020. As a result, most of the listed hydropower plants saw negative revenue growth last year. Although this is due to the climate cycle, we still want to emphasize the impact of the low output from the hydropower group on the electricity demand during the period of economic growth of over 6% per year with surging manufacturing activities due to the global trade war.

Therefore, one of the feasible solutions in the medium and long term adopted by EVN is to build more thermal power plants. Projects under construction include Duyen Hai Thermal Power, and many more in the master plan such as Vung Ang Phase 3 Thermal Power Plant, Nam Dinh Thermal Power, and Quynh Lap

Importing is also a solution. EVN is building links through Laos to import electricity. This short-term plan indicates that the electricity shortage problem is serious, and so we would like to emphasize the contribution of coal and gas-fired power plants in the near future.

Gas-fired power plants are also facing short-term supply problems and medium-term cost issues. Total domestic gas supply only meets about 2/3 of gas demand for electricity generation. Gas-fired power plants are responsible for 20% of the load within the Southeast region - an economic locomotive for Vietnam. Hence, the transmission of electricity from the North to the South, though not new, is still of utmost importance for the market. In 2022-2023, many new gas fields are expected to start operation. At the same time LNG storage will also be ready for importing liquefied gas to increase utilization of gas turbines. As such, a long-term problem is that the cost of gas power plants is likely to increase, meaning that their competitiveness on CGM may deteriorate.

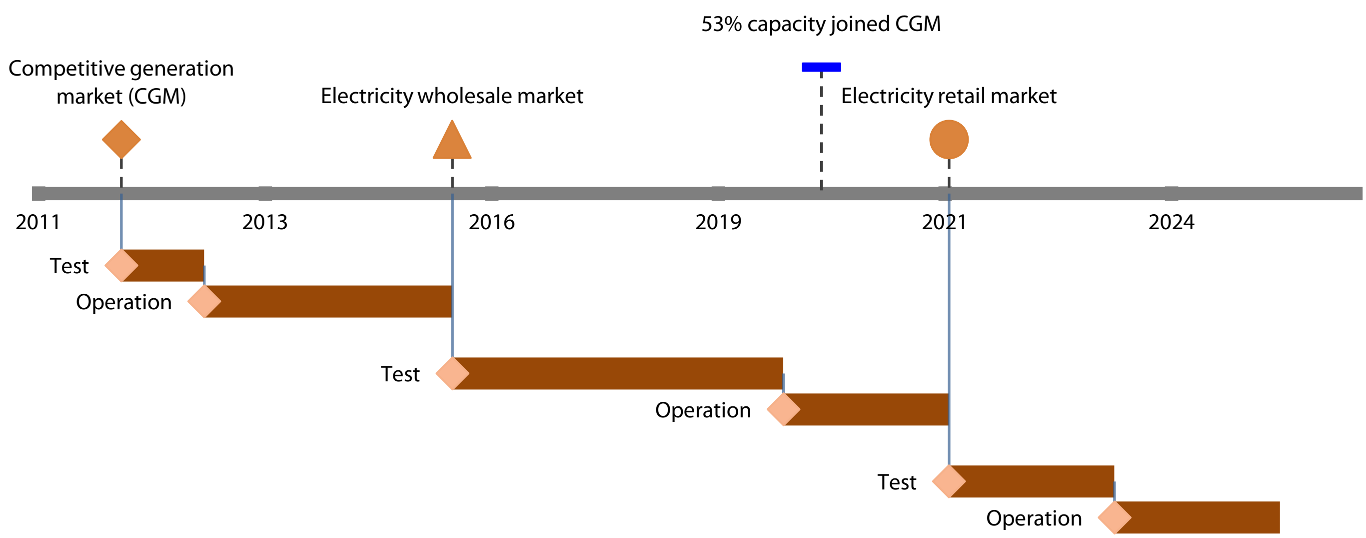
In addition, due to a lack of gas, EVN even mobilizes the gas-fired turbines to run on D.O. with a cost up to 5,000 VND / kWh. This is a short-term and unstable solution, which is uneconomical in the long term.

Renewable energy cannot deliver a reliable performance due to instability and poor transmission infrastructure

Renewable energy in Vietnam at the moment mainly consists of solar and wind power, in which wind power contributes very little. However, investors should bear in mind that this group's contribution might be limited. In essence, both solar and wind power plants are highly dependent on local weather. Therefore, the contribution to the national grid is generally quite unstable, depending on the season of the year and even varying within a day. Secondly, solar power is clustered in Ninh Thuan and Binh Thuan only. The transmission system cannot not accommodate it. This is a bottleneck that EVN is gradually removing. Therefore, in the medium and short-term, we expect that this group will produce very little. Fitch Solutions forecasts that renewable energy will contribute only 8% to the national generation capacity and 3% of the total output by 2023.

Electricity market liberalization: only into half of the progress

Figure 31: Market liberalization timeline



Source: EVN, Rong Viet Securities

Liberalization of the electricity industry in Vietnam is currently at the stage of wholesale market. In terms of progress, 87 plants, representing 53% of the total generating capacity, have entered the competitive wholesale electricity market. Most are large power plants, of which private power plants are a minority. Although aiming to create an attractive environment for private investors, the proportion of output traded in the competitive market is still limited and the mechanism of underwriting has not yet made the electricity wholesale market completely "liberalized". In addition, a significant portion of generation capacity still comes from small power plants, which cannot compete in the free market and still needs to be covered. Moreover, the monopsony system, with the sole buyer (EVN) and owning many power plants, is not a characteristic of a free market. Therefore, on the one hand, power plants in general including HND, are facing many risks from changes in the electricity market operation mechanism. On the other hand, these power plants are still enjoying certain advantages in the context of strong demand growth, and "rewards" are still available for stable production units, good cost control and reasonable financial policies.

Unit: VND billion

PROFIT & LOSS STATEMENT	2018	2019	2020E	2021F
Revenue	9,527	11,301	12,222	9,577
COGS	7,935	9,525	10,183	8,347
Gross profit	**1,592**	**1,777**	**2,039**	**1,230**
Selling expenses	0	0	0	0
G&A expenses	169	150	158	166
Financial income	24	34	38	53
Financial expense	997	397	400	274
Other income/loss	-1	2	0	0
Gain/(loss) from joint	0	0	0	0
Profit Before Tax	**449**	**1,265**	**1,519**	**843**
Tax expense	24	62	76	42
Minority interests	0	0	0	0
Profit After Tax	**425**	**1,203**	**1,443**	**801**
EBIT	1,423	1,626	1,881	1,064
EBITDA	3,279	3,416	3,649	2,407

FINANCIAL RATIOS	2018	2019	2020E	2021E
Growth				%
Revenue	4.7	18.6	8.1	-21.6
EBITDA	-4.1	4.2	6.8	-34.0
EBIT	-8.0	14.3	15.7	-43.4
PAT	7.4	183.2	20.0	-44.5
Total assets	-9.1	-8.0	-4.4	-14.5
Total equity	9.8	9.4	17.8	0.2
Profitability				%
Gross margin	16.7	15.7	16.7	12.8
EBITDA margin	34.4	30.2	29.9	25.1
EBIT margin	14.9	14.4	15.4	11.1
Net margin	4.5	10.6	11.8	8.4
ROA	3.1	9.5	11.9	7.7
ROCE	12.8	16.5	19.3	12.0
ROE	15.3	19.0	19.2	10.2
Efficiency				times
Receivables turnover	4.8	5.0	4.7	4.5
Inventories turnover	22.3	15.9	14.5	12.7
Payables turnover	10.2	9.4	11.9	13.6
Liquidity				times
Current	1.1	1.3	2.0	2.9
Quick	1.0	1.1	1.7	2.5
Finance Structure				%
Total debt/equity	127.4	86.6	52.9	32.0
ST debt/equity	32.7	29.1	20.8	12.3
LT debt/equity	94.7	57.5	32.1	19.8

Unit: VND billion

BALANCE SHEET	2016	2017	2018F	2019F
Cash and cash equivalents	692	779	1,032	1,027
Short-term investments	0	0	500	600
Accounts receivable	1,967	2,278	2,586	2,122
Inventories	356	598	702	659
Other current assets (inc. non-trade receivables)	5	1	1	1
Property, plant & equipment	10,495	8,790	7,062	5,716
Acquired intangible assets (Inc. Goodwill)	1	1	1	1
Long term investments	1	1	1	1
Other non-current assets	252	217	224	230
Total assets	**13,769**	**12,664**	**12,107**	**10,356**
Accounts payable	777	1,008	853	615
Short-term borrowings	1,861	1,815	1,529	902
Long-term borrowings	5,391	3,582	2,354	1,452
Other non-current liabilities	0	0	0	0
Bonus and Welfare fund	48	28	35	39
Technology-science development fund	0	0	0	0
Total liabilities	**8,077**	**6,434**	**4,771**	**3,009**
Common stock and APIC (additional paid in capital)	5,197	5,197	5,197	5,197
Treasury stock (enter as -)	0	0	0	0
Retained earnings / accumulated deficit	432	969	2,077	2,088
Other comprehensive income / (loss)	0	0	0	0
Investment and Development Fund	64	63	63	63
Total equity	**5,692**	**6,230**	**7,337**	**7,348**
Minority Interest	**0**	**0**	**0**	**0**

CASH FLOW STATEMENT	2018	2019	2020E	2021F
Profit before tax	449	1,265	1,519	843
Depreciation	1,856	1,789	1,768	1,343
Adjustments	948	351	(38)	(53)
Change in Working capital	(2,101)	(905)	(708)	192
Net Operating CFs	**1,151**	**2,500**	**2,541**	**2,325**
Change in Fixed Asset	(11)	(69)	(277)	(275)
Change in Deposit, equity investment	-	-	(500)	(100)
Interest, dividend, cash profit	20	32	38	53
Net Investing CFs	**9**	**(37)**	**(739)**	**(322)**
Change in Capital	-	-	-	-
Change in Debt	(308)	(1,861)	(1,815)	(1,529)
Dividend paid & other	(183)	(528)	(600)	(750)
Net Financing CFs	**(491)**	**(2,390)**	**(2,415)**	**(2,279)**
Beginning cash & equivalents	**23**	**692**	**779**	**1,032**
Change in cash & equivalents	669	74	(614)	(276)
Ending cash & equivalents	**692**	**779**	**1,032**	**1,027**

Initial Coverage

This report is created for the purpose of providing investors with an insight into the discussed company that may assist them in the decision-making process. The report comprises analyses and projections that are based on the most up-to-date information with the objective that is to determine the reasonable value of the stock at the time such analyses are performed. Through this report, we strive to convey the complete assessment and opinions of the analyst relevant to the discussed company. To send us feedbacks and/or receive more information, investors may contact the assigned analyst or our client support department.

RATING GUIDANCE

Ratings	BUY	ACCUMULATE	REDUCE	SELL
Total Return including Dividends in 12-month horizon	>20%	5% to 20%	-20% to -5%	<-20%

ABOUT US

RongViet Securities Corporation (RongViet) was established in 2007, licensed to perform the complete range of securities services including brokerage, financial investment, underwriting, financial and investment advisory and securities depository. RongViet now has an operating network that spreads across the country. Our major shareholders, also our strategic partners, are reputable institutions, i.e Eximbank, Viet Dragon Fund Management, etc... Along with a team of the professional and dynamic staffs, RongViet has the man power as well as the financial capacity to bring our clients the most suitable and efficient products and services. Especially, RongViet was one of the very first securities firms to pay the adequate attention to the development of a team of analysts and the provision of useful research report to investors.

The **Analysis and Investment Advisory Department** of RongViet Securities provides research reports on the macro-economy, securities market and investment strategy along with industry and company reports and daily and weekly market reviews.

ANALYSIS & INVESTMENT ADVISORY DEPARTMENT

Lam Nguyen
Head of Research
lam.ntp@vdsc.com.vn
+ 84 28 6299 2006 (1313)

Duong Lai
Senior Analyst
duong.ld@vdsc.com.vn
+ 84 28 6299 2006 (1522)
- Real Estate
- Building Materials

Vu Tran
Senior Analyst
vu.thx@vdsc.com.vn
+ 84 28 6299 2006 (1518)
- Oil & Gas
- Fertilizer

Trinh Nguyen
Senior Analyst
trinh.nh@vdsc.com.vn
+ 84 28 6299 2006 (1551)
- Steel
- Construction
- Utilities

Tu Vu
Analyst
tu.va@vdsc.com.vn
+ 84 28 6299 2006 (1511)
- Macroeconomics

Tung Do
Analyst
tung.dt@vdsc.com.vn
+ 84 28 6299 2006 (1521)
- Logistics
- Aviation

Tam Pham
Analyst
tam.ptt@vdsc.com.vn
+ 84 28 6299 2006 (1530)
- Insurance
  Fishery

Anh Nguyen
Analyst
anh2.ntt@vdsc.com.vn
+ 84 28 6299 2006 (1531)
- Banking

Hoang Nguyen
Analyst
hoang.nt@vdsc.com.vn
+ 84 28 6299 2006 (1538)
- Market Strategy

Hoang Bui
Analyst
hoang.bh@vdsc.com.vn
+ 84 28 6299 2006 (1514)
- Natural Rubber
- Agriculture

Tu Pham
Analyst
tu.pm@vdsc.com.vn
+ 84 28 6299 2006 (1536)
- Steel

Khoa Ngo
Analyst
khoa.nc@vdsc.com.vn
+ 84 28 6299 2006 (1519)
- Retails

Bernard Lapointe
Senior Consultant
bernard.lapointe@vdsc.com.vn
+ 84 28 6299 2006

Ha Tran
Assistant
ha.ttn@vdsc.com.vn
+ 84 28 6299 2006 (1526)

Vi Truong
Assistant
vi.ttt@vdsc.com.vn
+ 84 28 6299 2006 (1517)

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