true Friend KIS Viet Nam Securities Corporation KISVN Equity | January 17, 2025



POWER 2025 Outlook: Opportune moment

"In 2025, nationwide electricity consumption is expected to maintain an 11% yoy growth, with hydropower and gas-fired power being the highlights of the sector. This is attributed to the anticipated recovery from the return of the La-Niña phase and an increase in the alpha coefficient in the contracted output of thermal power plants to 80% in 2025 ..."

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What is the report about?

- The electricity output is estimated to grow ~11% in 2025F.
- 2025F Renewable expected to increase by 8% yoy in output.
- 2025F Bright light in natural gas-fired & hydropower sources.

I. Executive summary

2024 - Electricity consumption demand remained robust

According to EVN data, nationwide electricity consumption in 10M24 continued its upward trend, increasing by 10% yoy to 309bn kWh. Specifically: Coal-fired power output rose sharply by 18% yoy, driven by the strong El-Niño effect in 1H24. Meanwhile, hydropower recorded +10% yoy thanks to the return of Neutral phases by 2H24. Additionally, renewable energy achieved 40bn kWh, up 7% yoy, thanks to growth in both wind power (+10% yoy) and solar power (+6% yoy). On the other hand, gas-fired power downed 23% yoy.

2025F – Expectation of hydropower boosted by the La-Niña

EVN estimates that 2025 electricity output will total 344.7bn kWh (+11% yoy), based on GDP growth of ~7.5% in 2025F.

- According to EVN's 2025 plan, hydropower production is projected at 87bn kWh (-2% yoy). However, we believe that with a 50% probability of the La-Niña phase occurring and expected to persist into 2H25, the output could reach 96bn kWh (+8% yoy). The capacity factor (CF) is estimated to soar to 45% in 2025F (+2%p yoy), supported by (1) the potential continuation of La-Niña phase into 2H25F; (2) historical data suggesting that during the transition from El-Niño to La-Niña phases, the capacity factor (CF) of hydropower plants typically improves by ~1-2%.
- The coal-fired power output is forecast to increase by 15% yoy (Plan the output's EVN: +14% yoy), driven by a 11% growth in electricity consumption demand in 2025F and the addition of 660MW from Unit 01 of Vung Ang II. This lead capacity factor of coal-fired power is expected to increase to 64%, +7%p yoy.
- Renewable energy sources' production is estimated to advance to 8% yoy, CF predicts to reach 20% (+1%p yoy) driven by (a) the ongoing increase in electricity consumption; (b) additional capacity from transitional wind power projects and the direct power purchase agreements (DPPA) in 2025F.
- In addition, EVN's output plan projects gas-fired power plants to rise to 24%. However, in our view, gas-fired power plant output is estimated to decline by 9% yoy in 2025F,

The nationwide electricity consumption in 2024 continued its upward trend

The capacity factor (CF) is estimated to soar to 45% in 2025F (+2%p yoy)

The capacity factor of coal-fired power is expected to increase to 64% (+7%p yoy) The domestic gas supply is gradually declining

.... promoting the operation of wind power projects and DPPA depends greatly on the perspective of the Government with capacity factor (CF) dropping to 29% (-5%p yoy). This is primarily due to (c) the expansion of renewable energy capacity within the system, reducing reliance on high-cost energy sources like gas-fired power. Furthermore, (d) gas-fired power production is expected to decrease partly as the BOT Phu My 2.2 and Phu My 3 power plants will no longer operate under contract.

Besides, high natural gas prices predicted to remain high in contrast with FO prices, which are expected to decrease by ~8% in 2025F, according to data from Bloomberg. Furthermore, the domestic gas supply is gradually declining, leading to the need to mobilize more expensive sources, such as Sao Vang - Dai Nguyet. Both effects may continue to pressure gas-fired plants' gross margin in 2025F.

The fluctuation could be due to changing hydrological situations and new policies

The motivation to improve the operation of hydropower plants is largely based on the probability of decline of the El-Niño phase. However, weather forecasting is always a difficult problem, even in the short term. Besides, in 2024-25F, promoting the operation of wind power projects and DPPA depends greatly on the perspective of the Government and MOIT in perfecting policies to support the development of power sources.

Table 1. Coverage valuation

Recommen					Earı	ning & Val	uation						
Company				Sales	OP	NP	EPS	BPS	ROE	ROA	PE	PB	EV/ EBITDA
				(VND bn)	(VND bn)	(VND bn)	(VND)	(VND)	(%)	(%)	(x)	(x)	(x)
Quang Ninh Thermal Power	Recommendation	BUY	2022A	10,417	1,081	764	1,405	13,694	12.4	9.0	11.1	1.3	6.3
(QTP)	TP	18,900	2023A	12,058	817	612	1,125	11,761	10.7	7.9	10.9	1.3	9.7
	Price	13,800	2024E	11,828	921	720	1,323	11,620	13.7	10.2	9.0	1.2	8.1
	Market cap	7,065	2025F	12,132	973	785	1,439	11,360	15.1	11.7	8.3	1.3	7.7
	(VND bn)		2026F	11,244	1,036	888	1,632	11,093	17.6	13.7	7.3	1.3	7.1
REE Corporation	Recommendation	N/A	2022A	9,372	3,663	3,515	7,527	43,507	18.7	10.7	11.1	1.3	10.3
(REE)	TP	N/A	2023A	8,570	2,954	2,787	5,322	42,269	13.3	8.1	8.3	1.3	11.3
	Price	65,500	2024E	8,604	2,315	2,369	5,011	39,488	13.2	6.9	13.4	1.7	17.4
	Market cap	32,759	2025F	9,685	2,394	2,158	4,988	42,205	12.3	6.9	13.5	1.6	16.4
	(VND bn)		2026F	9,047	3,046	2,927	6,191	45,529	14.2	8.5	10.8	1.5	13.2
Petro Vietnam Power	Recommendation	HOLD	2022A	28,224	2,859	2,553	824	13,031	7.0	4.6	11.1	1.3	9.4
(POW)	TP	15,100	2023A	27,945	1,404	1,329	430	13,430	3.5	2.1	19.8	0.8	22.0
	Price	15,100	2024E	29,965	1,572	1,357	542	13,972	4.2	1.6	21.3	0.9	22.8
	Market cap	26,346	2025F	35,555	1,566	1,206	336	14,308	2.5	0.8	34.4	0.9	41.6
	(VND bn)		2026F	47,046	(657)	(908)	(363)	13,945	(2.7)	(0.8)	(31.9)	0.9	(54.4)
Nhon Trach 2 Power	Recommendation	HOLD	2022A	8,788	1,082	883	2,961	16,027	20.0	12.6	11	1.3	8
(NT2)	TP	19,900	2023A	6,386	510	473	1,586	15,062	10.6	6.0	15	1.6	14
	Price	21,950	2024E	6,073	22	87	291	13,853	2.1	1.0	65	1.4	2,112
	Market cap	7,053	2025F	5,942	52	71	446	12,799	3.5	1.7	43	1.5	142
	(VND bn)		2026F	5,349	(74)	30	100	11,398	0.9	0.4	191	1.7	(49)

Source: Company Data, KIS Research

Table 2: 2025F bu		(VNDbn, %, %p)		
	Rever	nue	N	PAT
	2025F	уоу	2025F	уоу
QTP	12,132	3	785	10
REE	9,685	12	2,158	19
POW	35,555	18	1,206	(31)
NT2	5,942	(2)	71	19
KIS coverage list	63,314	13	4,220	(3)

Source: Company data, KIS Research

II. Electricity Demand Maintains Positive Growth in 2024

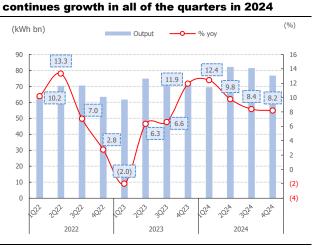
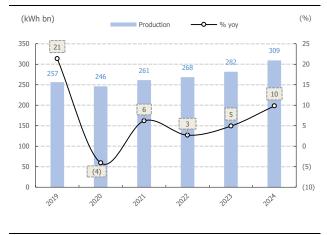


Figure 1. The recovery trend started by 2023 and

1. Sustained Growth in Electricity Demand

Figure 2. National electricity output continues to maintain growth, reaching 10% yoy

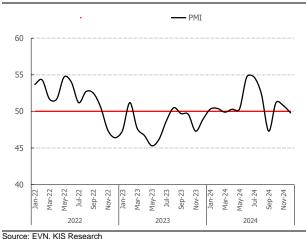


Source: EVN, KIS Research

Nationwide electricity consumption in the 2024 reached 309bn kWh (+10% yoy) Source: EVN, KIS Research

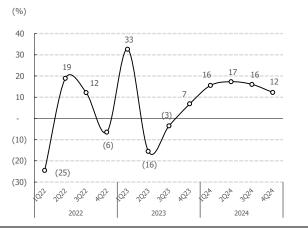
Per EVN data, the recovery trend in nationwide electricity production started in 2Q23 and continued in all quarters 2024 (figure 1). For 2024, the electricity production reached 309bn kWh, +10% yoy (figure 2), meeting EVN's established target. Overall, the growth momentum reflects (*i*) economic recovery, as evidenced by the better PMI and the export-import value (figure 3, 4). In addition, (*ii*) a higher average temperature in 2024 also contributed to the increase in consumption (figure 5).





Note: PMI (Manufacturing Purchasing Managers' Index™)

Figure 4. The data about total ex-import in 2024 indicated the continueing recovery trend



Source: GSO, KIS Research

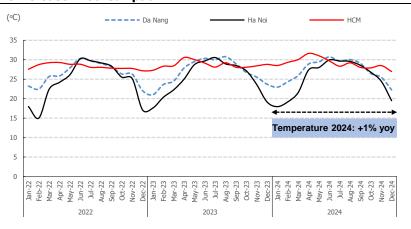


Figure 5. ... a higher average temperature in 2024 also contributed to the increase in consumption

Source: Meteostat, KIS Research

2. Coal Reaps Greater Benefits, Hydropower Gains Moderately

Figure 6. Hydro, coal-fired and renewable power sources recorded positive growth in 2024

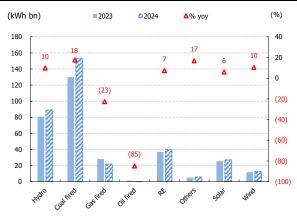


Figure 7. Hydropower and solar recorded the best improvements in CF in 2024

CF	Hydro	Coal	Gas	Oil	RE	Solar	Wind
2023	39	57	43	2	19	18	20
2024	43	62	34	2	20	21	20
1Q23	31	50	45	0	21	19	24
2Q23	29	68	59	7	19	21	16
3Q23	52	54	34	2	18	18	18
4Q23	44	57	34	0	18	15	20
1Q24	21	65	38	0	23	19	26
2Q24	36	74	42	6	18	21	16
3Q24	75	48	24	0	20	20	20
4Q24	46	62	27	1	20	17	23

Source: EVN, KIS Research

... hydropower output grows by 8% yoy due to water inflows

Hydropower

Group: In whole year 2024, the hydropower recorded 89mn kWh +10% yoy (figure 6), accounting for 29% of the system, and the CF rose to 43%, +4%p yoy, specifically as follows:

Source: EVN, KIS Research

Note: Capacity factor (CF)

- In 1H24, the El-Niño phase exerted considerable influence on the hydropower groups. Consequently, the output was 28.6bn kWh (-3% yoy), while the CF stood at only 28%, down 2%p yoy (figure 7).
- The contrast has been going on since the transition from the neutral to the La-Niña phase. The improvement of water inflows began at the beginning of 3Q24 and extended until October 2024. As a result, hydropower plants' CF in 2H24, increased to

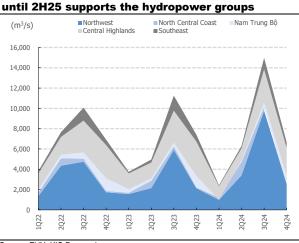
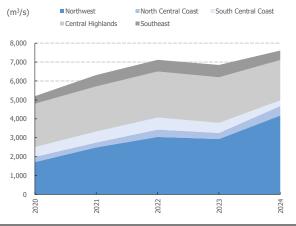


Figure 8. ... La-Niña phase, that is expected to last

61% (figure 7).

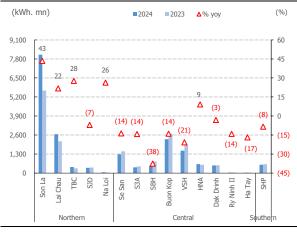
Figure 9. Northwest and North Central Coast regions showed more positive lake flows in 2024

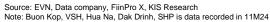


Source: EVN, KIS Research

Source: EVN, KIS Research

Figure 10. ... positive performance in the Northern region, in contrast to the Central and Southern regions, showing less favorable prospects





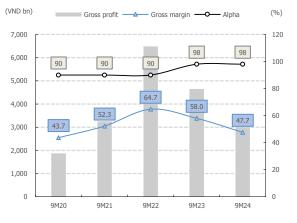
Listed companies

... the Northwest and North Central Coast regions performed better

Overall, in 2024, according to EVN's data, the South Central Coast and Southeast region (figure 8, 9) could face reduced efficiency when the water flow at the reservoirs reached 310 m³/s (-41% yoy, figure 9) and 505 m³/s (-23% yoy) such as Vinh Son-Song Hinh (VSH_REE), A Vuong (AVC), Song Ba Ha (SBH), Thac Mo (TMP) hydropower...

In contrast, the Northwest and North Central Coast regions performed better, with the average water flow to hydropower reservoirs recorded at 4,199 m³/s (+43% n/n) and 510 m³/s (+56% yoy), respectively. Hence, hydropower plants in these areas could have favorable business results (figure 9), including Thac Ba Hydropower (TBC_REE), Huoi Quang, Ban Ve, Lai Chau, and Trung Son, among others.

Figure 11. ... and the Alpha coefficient changed from 90% to 98%, impacting the gross margin and NPAT of hydropower plants



Note: Recorded data of enterprises (AVC; TMP; VSH; DNH; HNA; ISH; S4A; SBH; CHP; SJD; TBC; SHP) panies

Source: FiinProX, KIS Research

In terms of margin and profit: Along with the impact of the output decline, we believe that EVN couldincrease the contract volume to 98% (compared to 90% in 2023), which means most of the output is sold at the contract price, significantly lower than the full market price (FMP). Consequently, this resulted in the gross profit of the hydropower group in first 9 months of 2024 dropping sharply by 41% yoy (figure 11).

Coal-fired power

... the compensation for the capacity shortfall of hydropower sources Group: reached 152bn kWh, +18% yoy (figure 6). The primary growth driver (i) was the compensation for the capacity shortfall of hydropower sources as an impact of El-Niño phases in 1H24. Besides, (ii) thanks to the electricity consumption demand in 2024 still high level (+10% yoy); and (iii) new capacity of Thai Binh II (1,200MW) and Van Phong (1,320MW). These led to the coal-fired power group's CF recording 62%, an increase of 5%p yoy.



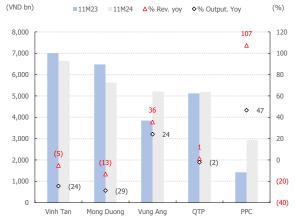
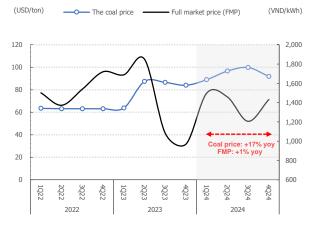


Figure 13. The coal price in first 11 months of 2024 probility still high level at USD91/tonne, +17% yoy



Source: EVN, PGV, POW, KIS Research

Source: EVN, PGV, POW, KIS Research

Listed companies

Pressure from 17% increase in coal prices in 2024, while the FMP only rose 1% yoy

Statistics on the first 11 months of 2024, output of the coal-fired showed a downward trend as in Vinh Tan (-24% yoy), Mong Duong (-29% yoy), Vung Ang (+24% yoy) due to the first 10 months of 2023 performing unit maintenance and repair (figure 12).

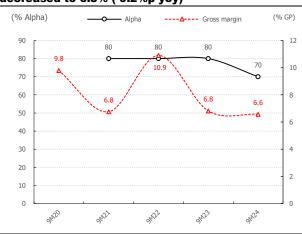
Hence, the revenue of the coal-fired power in the first 11 months of 2024 decreased accordingly (figure 12) such as, Vinh Tan (-5% yoy), Mong Duong (-13% yoy), QTP (+1% yoy).

1,229

01123

1,158

0m24



in 2024

Figure 14. Gross margin of coal-fired power group decreased to 6.8% (-0.2%p yoy)



Alpha coefficient affects gross

profit of coal-fired power group

Source: EVN, PGV, POW, KIS Research Note: Data recorded from QTP, HND, PPC

01120

1.400

1.200

1,000

800

600

400

200 0

In terms of profit: Despite of a good improvement in CF. However, (i) inefficiencies in selling price (+1% yoy) and marginal cost (+17% yoy) (figure 17) and (ii) the decrease in the alpha coefficient for contract output to 70% (compared to 80% in 2023, figure 14), which have negatively impacted of the coal-fired power group' gross margins and profits. Overall, in the first 9 months of 2024, the gross margin recorded a slight decrease from 6.8% to 6.6% (figure 14).

Gas-fired

Group: In 2024, production output reached 21bn kWh, -23% yoy, (figure 6), CF declined to 34%, -9%p yoy, accounting for 7% of the system. The primary reasons include: (i) the increase in renewable energy capacity in the system (wind: +10% yoy, solar: +6% yoy); (ii) the Phu My 3 BOT contract expiration in August 2024; and (iii) major overhauls conducted on Phu My 2.1- expansion and Phu My 2.2.

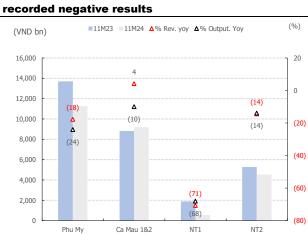
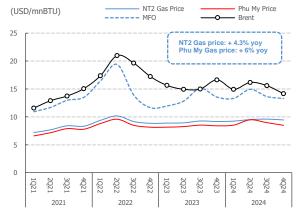


Figure 16. Revenue of gas-fired power plants



Figure 17. The gas price probility still high level at 9.5 USD per mnBTU, +6% yoy



Source: EVN, PGV, POW, KIS Research



01422

881

ONN21

Source: EVN, PGV, POW, KIS Research

The production of gas-fired power plants experienced a decrease

... negatively impacted the gross margin of these gas -fired power plants in 2024

Listed companies

Statistics on the first 11 months of 2024, *output* of the gas-fired plants also showed a downward trend (figure 16) as in Nhon Trach 1 (-71% yoy), Nhon Trach 2 (-14% yoy) or Phu My (-24% yoy), Ca Mau 1&2 (-10% yoy) due to pressure from a pegged high gas price (figure 17) and some bases from the above analysis.

Hence, the revenue of the gas-fired power plants in first 11 months of 2024, decreased accordingly (figure 16) such as, Phu My (-18% yoy), Ca Mau 1 & 2 (+4% yoy), NT2 (-14% yoy).

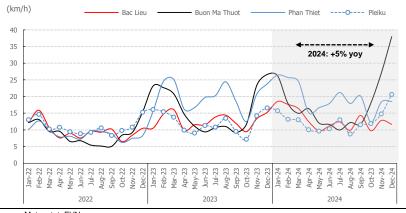
In terms of profit: (i) The average FMP increased only 1% in 2024 while the average gas price is estimated to increase 4-6% yoy (figure 17). Along with *(ii)* a reduction in volume as above mention, these negatively impacted the gross margin of these gas-fired power plants in 2024.

A more compelling explanation for the rise in gas prices, which contrasts with the -4% yoy decline in oil prices in 2024. This could be explained by the decline in domestic gas supply with theSoutheastern region experienced a 28% yoy reduction in 2024 (figure 23), leading to the mobilization of more expensive gas sources, such as Sao Vang - Dai Nguyet.

Renewable energy

In 2024 production output reached 39.8bn kWh, marking a 5% yoy increase (figure 6). In which:

Figure 18. Wind speed in several areas across the country experienced significant fluctuations during 2024



Source: Meteostat, EVN

 Wind power: This growth was driven by increased output of wind power recorded at 12.7bn kWh, +12% yoy (figure 6). CF in 2024 was estimated to be 20%, unchanged compared to 2023 (figure 7).

In the first 11 of months, EVN added 10 renewable energy transition projects, adding ~650 MW to the system (figure 20). All of them belong to private companies.

The output of wind power grew significantly by 12% in 2024

мw

478

130

49

49

100 26

26

24

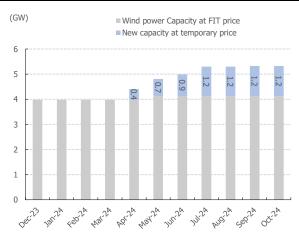
30

45

172

172

650



Source: EVN, KIS Research

Figure 19. The capacity added to the system in 2024

4	+ Tall Fliu Dolig
5	+ Binh Dai
6	+ Huong Hiep 1
7	+ Phu My 3
8	+ Hoa Dong

Figure 20. List of new renewable energy in the first 11

Project

Total wind power capacity

+ Lac Hoa 2

+ Binh Dai 2

+ Binh Dai 3

+ Ton Dhu Do

+ Tan An 1

Total solar power capacity

Source: EVN, KIS Research

months of 2024

1

2

3

q

10

.

Solar power reached 27bn kWh, +5% yoy. Thanks to good • radiation in 2024, solar's CF increases to 21%, +3%p compared to the previous year (figure 7).

+ Project in Phuoc Minh, Ninh Thuan

Total capacity

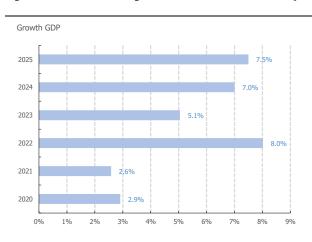
III. 2025 - Electricity consumption output is likely to increase

1. System's demand and supply in 2025

2025F – Forecast of demand continues to increase

yoy in 2025 (kWh bn)

According to data from EVN, the estimated electricity output for 2025F is 335.4bn kWh, +11% yoy, based on the expectation of GDP growth is ~7.5% in 2025F (figure 21, 22).





50

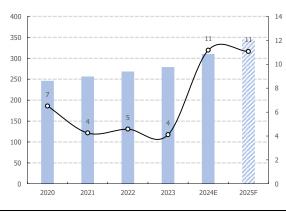


Figure 22. The production output is predicted to grow 11%

-0-— % yoy

Production output

Source: GSO, KIS Research

Source: EVN's plan, KIS Research

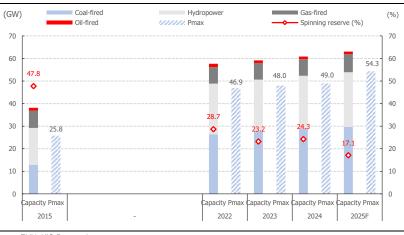
(%)

The spinning reserve ratio is estimted to decline to 17% yoy in 2025

New supply is slower than demand growth

According to EVN data, in 2025, the plan is to add ~4.1 GW (+3% yoy) new capacity, bringing the total system capacity to 89 GW. While the Pmax is projected to reach 54.3 GW, reflecting an 11% growth compared to 2024. Consequently, the spinning reserve ratio is estimated to decline to 17% yoy in 2025. This number indicates that the electricity system still has potential risks of power shortages in 2025, although the forecasted probability is low.

Figure 23. The spinning reserve ratio countinues to decline in 2025



Source: EVN, KIS Research

Table 4. Systerm's capacity in 2025

Sources	Location	(MW)	Investor	COD	2023	2024	2025F
lydro power					23,436	23,618	24,445
An increase over 2024							860
+ Nam Cum 3	Lai Chau	35	Privated company	08/2023			35
+ Nam Cum 4	Lai Chau	54	Privated company	01/11/2024			54
+ Ban Mong	Nghe An	45	Privated company	3Q25			45
+ Hoi Xuan	Thanh Hoa	102	Privated company	1Q24			102
+ Tra Khuc 1	Quang Ngai	36	Privated company	2Q25			36
+ Dak Mi 1	Kon Tum	84	Privated company	06/2025			28
+ Duc Thanh	Binh Phuoc	40	Privated company	12/2024			40
+ Yaly *	Gia Lai	360	EVN	12/2024			360
+ Hoa Binh *	Hoa Binh	480	EVN	08/2025			16
Coal - fired					28,952	30,232	30,89
An increase over 2024							66
+ Vung Ang II	Ha Tinh	1200	BOT	01/2025			660
Bas - fired					7,197	7,277	8,77
An increase over 2024							1,50
+ LNG NT3 & NT4	Dong Nai	750	POW	06 - 09/2025			1,50
Renewable energy					23,242	23,839	25,010
An increase over 2024							1,177
+ Biomass					410	410	410
+ Wind power					6,333	6,733	7,910
+ Solar power					16,499	16,696	16,69
Total additional capa	city over 2024						4,19
Total capacity					82,827	84,966	89,130

Source: PDP 8, KIS Research Note: (*): Expansion

FMP forecasts to decrease

According to EVN's decision, the SMP cap price in 2025 is 1,683 VND/kWh, +11% yoy, while the capacity price (CAN) is set to drop to ~50 VND/kWh, -85% yoy (figure 24). Hence, It is likely to the average of FMP will be down in 2025F. Basically, this is a disadvantages point for energy generator on competitive generation market.

Figure 25. Alpha coefficient in contract output of

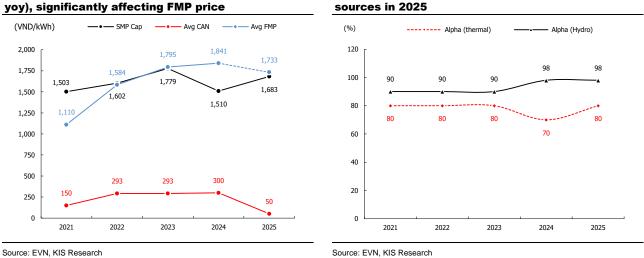
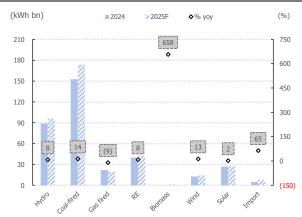
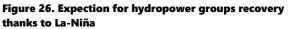


Figure 24. CAN price drops sharply in 2025 (-85% yoy), significantly affecting FMP price

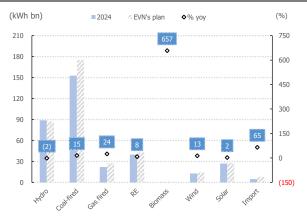
2. 2025F – Bright light in natural gas-fired & hydropower sources





Source: EVN, KIS Research

Figure 27. Production growth of sources according to EVN's plan in 2025



Source: EVN's plan, KIS Research

According to the EVN's plan (figure 27), in 2025F, the production of hydro source could down 2% yoy, coal-fired power (+15% yoy), gas-fired power (+24% yoy), and renewable energy: +8% yoy. These are based on (*i*) an estimated 11% yoy increase in national electricity

consumption in 2025F and (ii) a 2% yoy decline in hydropower output due to expectations of low water inflow levels at reservoirs and (iii) some policies to encourage renewable energy development.

However, in our forecast, hydropower output in 2025 could increase +8% yoy in 2025F, while gas-fired power is anticipated to continue its downward trend -9% yoy due to several reasons analyzed below (figure 26).

Source: EVN, KIS Research

Figure 29. CF of coal and wind power groups could



Figure 28. Proportion of electricity output sources in 2025

maintain growth					
CF (%)	2021	2022	2023	2024	2025F
+ Hydro power	42	49	39	43	45
+ Coal fired	58	48	57	62	64
+ Gas fired	42	47	43	34	29
+ Oil fired	0	0	2	2	2
+ Renewable	19	19	19	20	19
+ Biomass	9	11	26	4	31
+ Wind	17	22	20	21	21
+ Solar	19	18	18	20	19

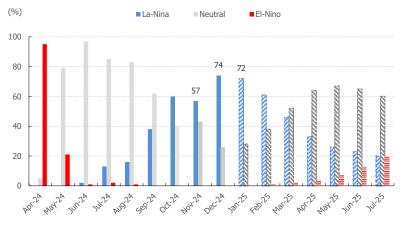
Source: EVN, KIS Research

The CF is projected to climb to 45%, marking a 2% growth.

Hydropower

Production: In 2025F, we projected the output of the hydropower group to reach 96bn kWh, +8% yoy (figure 26), representing 28% of total electricity output. Consequently, the CF is expected to rise to 45%, reflecting a 2% increase compared to the 43% recorded in 2024F (figure 29), based on:

Figure 30. La-Niña is expected to last until the Jun 2025 and transition to the Neutral in 2H25, with a probability of 55%



Source: NOAA, KIS Research

- According to data from NOAA, the La-Niña phase probility lasts to the 2H25F (figure 30). Thus, we believe that the La-Niña phase continues to impact strongly, creating a more favorable environment for hydropower plants in 2025F.
- According to historical data, in the first year of the transition period from El-Niño to La-Niña, the hydropower plants' CF typically only improves by a rate of ~1-2%. This is also one of the bases for our expectation of the average CF in 2025F (figure 29, 30).

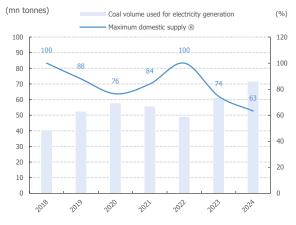
Margin & profit: Although the selling price in the FMP electricity market in 2025 is likely to decrease compared to 2024, which will affect the revenue in the competitive electricity market, this revenue accounts for a relatively small proportion of only 2%. We also believe that the increase in output will offset the decrease in FMP. On this basis, we expect the gross profit margin and gross profit of the hydropower group to record growth in 2025.

Coal-fired power

Production: According to our analysis, by 2025, the output of this group is predicted to amount to 173bn kWh, +15% yoy in 2025F (figure 26) when the national electricity demand increases to 11% (figure 22) and if only relying on hydropower improvements, it could be difficult to meet this demand.

Figure 31. Domestic coal supply is increasingly declining

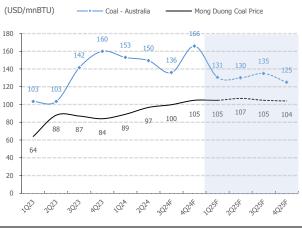
consumption



Source: TKV, Dong Bac Coal, KIS Research

Note: % maximum domestic supply = Total domestic coal supply/ Coal used for electricity generation. In reality, ~10-20% of domestic coal supply is provided to other industries.

Figure 32. Coal prices forecast to increase +15% yoy in 2025



Source: Bloomberg, KIS Research

Coal price is predicted that there may be a slight increase in 2025F +15% yoy (figure 32) due to TKV increasing the proportion of imported blended coal (figure 31). This could lead to coal prices of coal-fired power plants continuing to rise in the coming years, and negatively impacting the gross margin in 2025F.

Margin & profit: In 2025F, the production of coal-fired plants is planning to increase. And EVN has increased the alpha coefficient from 70% to 80% of contract output for thermal power plants (figure 25), this means

... gross margin and GP of hydropower could grow in 2025

Coal power output may grow,

driven by an 11% yoy rise in

nationwide electricity

that most of the output is sold at the contract price, which is significantly higher than the FMP. However, we believe these advantages could not cover fully the plunge in CAN price (figure 25). So, we believe the gross margin and profit of the coal-fired group could be downed in 2025F.

Figure 33. Domestic gas output in the Southeast region is estimated to decrease

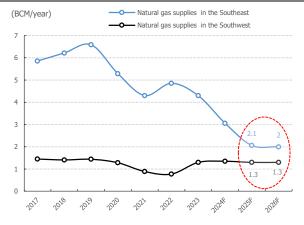
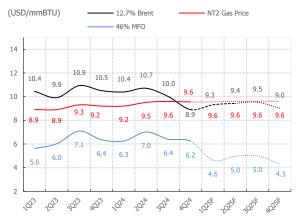


Figure 34. We estimate the gas price to be ~9.6 USD/mmBTU, + 3-4% yoy in 2025F



Source: PGV, KIS Research Note: Natural gas supply lectricity generation

Source: Bloomberg, NT2, KIS Research

... the gas thermal power group's CF in 2025F was only

29%, a decrease of 5% yoy

... domestic gas price continues on an increasing trend due to a shortage of supply Gas-fired

Production: According to data EVN's 2025 plan, we estimated gas-fired power plants' output in 2025F at 21bn kWh, a decrease 9% compared to 2024 (figure 26). As a result, the gas thermal power group's CF in 2025F was only 29%, a decrease of 5% compared to 2024E.

- However, the decline mainly comes from the reduction in production of Phu My 2.2 and Phu My 3 plants after the BOT period expired.
- In contrast, for other natural gas thermal power plants (NT2, Ca Mau 1&2 and Phu My 1, Phu My 4) the production could grow due to the expected compensation from the two BOT plants Phu My 2.2 and Phu My 3 whose contracts have expired.
- In addition, two LNG gas thermal power plants, Nhon Trach 3 and 4, are also planned to mobilize 2,403mn kWh in 2025F.

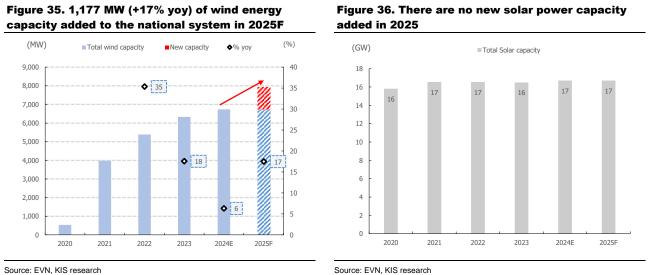
Gas price: We estimate the gas price to be ~9.6 USD/mmBTU, +3 - 4% yoy when we identify the domestic gas price continues on an increasing trend due to shortage of supply, and global gas prices are forecast to remain high until the end of 2Q25F (figure 33, 34).

Margin & profit

We estimate (*i*) the increase in production for natural gas thermal power plants (NT1, NT2, Ca Mau 1&2, Phu My 1, Phu My 4) ~ 8 -15% in 2025F. Besides, (*ii*) getting benefits of the alpha coefficient rise from 70% to 80% (figure 25), which means that most of the output is sold at the contract price, which is significantly higher than the FMP. And (*iii*) the increase of SMP

is faster than the natural gas price as above mentioned. These advantages could fully cover the plunge in CAN price. So, we believe the gross margin and profit of the gas-fired group could be improved in 2025F.

In contrast, for the NT3&4 plants, we calculate that with the above planned output, the NT3&4 LNG plant can only run at CF ~45%. So, it is likely that the plants could experience a loss in 2025F.



Source: EVN, KIS research

Renewable energy

According to our calculations, in 2025F the renewable energy output is estimated at ~45bn kWh, +8% yoy, accounting for 13% in the system (figure 26, 28). Based on our estimates, thanks to adding 1.1GW, +17% yoy of new wind power capacity in 2025F (figure 35).

The fluctuation could be due to changing hydrological situations and new policies

V. Risks to be considered

In the short term – 1H25F, the motivation to improve the operation of hydropower plants is largely based on declined likelihood of El-Niño. However, weather forecasting has always been a complex process and may contain inaccuracies even in the short term. Besides, in 2024-25F, promoting the operation of wind power projects and DPPA depends greatly on the perspective of the Government and MOIT in perfecting policies to support the development of power sources.

Company Analysis

Quang Ninh Thermal Power	QTP
REE Corporation	REE
PetroPower Viet Nam	POW
Nhon Trach 2	NT2

Quang Ninh Thermal Power (QTP)

	BUY	(Maintain),	, TP: VND18,900)
--	-----	-------------	-----------------	---

1,242	Y
13,700	
243	D
450	20
787/12,576	_
) 0.14	20
6) 47.4/.9	20
	20
42.0	21
16.3	20
	13,700 243 450 787/12,576) 0.14 6) 47.4/.9 42.0

1,242 13.700	Yr to	Sales	OP	NP	EPS	BPS	ROE	ROA	P/E	^{Р/В} Е	EV/ BITDA	DY	
243	Dec	(VND bn)	(VND bn) (\	/ND bn)	(VND)	(yoy) (VND bn)	(x)	(x)	(x)	(%)	(%)	
450	2022A	10,417	1,081	764	1,405	13,694	12.4	9.0	11.1	1.3	6.3	17.3	
12,576 0.14	2023A	12,058	817	612	1,125	11,761	10.7	7.9	10.9	1.3	9.7	7.0	
47.4/.9	2024E	11,828	921	720	1,323	11,620	13.7	10.2	9.0	1.2	8.1	10.2	
42.0	2025F	12,132	973	785	1,439	11,360	15.1	11.7	8.3	1.3	7.7	11.8	
42.0 16.3	2026F	11,244	1,036	888	1,632	11,093	17.6	13.7	7.3	1.3	7.1	13.2	

Growth from the expectation of repays its debts

Source: Company data, KIS Research

Note: NP and EPS attributed to controlling interest

Performance

Source: Bloomberg

			1M	6M	12M
Abso	olute (%	b)	2.0	(7.5)	3.2
Rel.	to VNI (%p)	3.6	(5.3)	(5.6)
Sto	ck pric	e			
20	(VND	000)			
15		mmy	h		_مر
10	-				
5	-				
0		I			
Ja	n-24	May-24	Sep-	24	

2024E - **Positive outlook for 17% growth.** We estimate revenue to total VND11,827bn, a 2% yoy decline, due to a 0.3% drop in production compared to the same period. However, NPAT improved by 17% yoy to VND716bn, driven by: (1) an estimated 36% reduction in debt in 2024, lowering it to VND201bn; and (2) a 30% annual decrease in plant depreciation. We assess that these two positive factors significantly supported QTP's gross margin, despite coal prices in 2024 being estimated to rise by 11% yoy.

Table 5. QTP earnings forecast

(VNDbn, %)

								(•	ND011, 70)
	1Q25F	2Q25F	1H25F			2025F		Conse	ensus
				уоу	qoq		уоу	1H25F	2025F
Revenue	2,899	3,535	6,435	(3)	24	12,132	3	-	12,077
GP	291	283	574	16	35	973	6	-	
EBT	270	261	532	23.7	45	873	10	-	
NPAT	243	235	478	23.7	45	785	9.7	-	917

Source: Company data, Bloomberg, KIS Research estimate

2025F – Result positive due to decreased total debt. We forecast business revenue to be recorded at VND11,665bn (+3% yoy) as the output in 2025 is projected at 7,808mn kWh (+10% yoy) due to (*1*) expectations of nationwide electricity consumption growth of 11% yoy. Additionally, (*2*) support from the alpha coefficient increasing from 70% to 80% of contracted output for thermal power plants indicates that most of the output will be sold at the contract price, which is significantly higher than the full market price (FMP). Despite of (*3*) the FMP is estimated to decrease 6% yoy in 2025F.

Besides, NPAT of VND785bn (+9.7% yoy), the main growth driver is attributed to:

- QTP's depreciation expenses have significantly decreased to approximately VND413bn, down 30% compared to the 2024 estimate.
- A gradual reduction in debt is expected, with an estimated 60% decrease in 2025, bringing the total down to ~VND81bn.
- Conversely, in 2025, we estimate coal prices could rise by ~10 15% yoy due to TKV increasing the proportion of blended coal usage.

- According to EVN, the CAN price in 2025 is estimated to reach VND50/kWh, which may impact QTP's profits in the SMP market.
- However, we believe that the positive factors mentioned above could offset the profit impact caused by increases in CAN and coal prices. Therefore, we expect QTP to achieve growth in 2025F.

Valuation: We still recommend BUY for QTP (TP: VND18,900; +36%) in the short, mid, and long-term based on the positive outlook for NPAT in 2025F and beyond.

Risks: (*a*) The supply of domestic coal by TKV is expected to gradually decline and become more dependent on imports. (*b*) This challenge causes the business to face high input material costs. Besides, (*c*) impacted by the return of La-Niña.

REE Corporation (REE)

NON-RATED

VNIndex (16 Jan, pt)	1,242	Y
Stock price (16 Jan, VND)	65,600	
Market cap (USD mn)	1,217	D
Shares outstanding (mn)	471	20
52-Week high/low (VND) 7	73,900/47,066	20
6M avg. daily turnover (USD i	mn) 1.84	20
Free float / Foreign ownership)	
(%)	38.2/49.0	20
Major shareholders (%)		20
Platinum Victory Pte.Ltd	41.82	
Nguyen Thi Mai Thanh	12.83	20

Yr to	Sales	OP	NP	EPS	BPS	ROE	ROA	P/E	P/B	EV/ EBITDA	DY
Dec	(VND bn) (VND bn)	(VND bn)	(VND)	(yoy)	(VND bn)	(x)	(x)	(x)	(%)	(%)
2022A	9,372	3,663	3,515	7,527	43,507	18.7	10.7	11.1	1.3	10.3	3.9
2023A	8,570	2,954	2,787	5,322	42,269	13.3	8.1	8.3	1.3	11.3	4.3
2024E	8,604	2,315	2,369	5,011	39,488	13.2	6.9	13.4	1.7	17.4	3.4
2025F	9,685	2,394	2,158	4,988	42,205	12.3	6.9	13.5	1.6	16.4	3.4
2026F	9,047	3,046	2,927	6,191	45,529	14.2	8.5	10.8	1.5	13.2	4.1

Source: Company data, KIS Research

Note: NP and EPS attributed to controlling interest

Expect positive growth from Power and Real estate segment

Performance

Source: Bloomberg

		1M	6M	12M
Absolute (%	b)	(0.9)	(11.2)	37.8
Rel. to VNI (%p)	0.7	(9.1)	29.0
Stock pric	е			
80 (VND) 60	000) ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	hon.	~~~~~	~
40 - 20 -				
Jan-24	May-24	Sep	-24	

2024E – Unfavorable outlook due to a significant decline in the Power segment. REE recorded revenue of VND8,364bn, down 2% yoy, primarily due to a decline in the power segment as REE's hydropower plants were heavily impacted by El-Niño phase. This led gross margin of the hydropower group to decline to 39.6% (-15%p yoy). Consequently, NPAT in 2024E is expected to drop to VND1,817bn (-35% yoy) as the gross margin narrows from 43.3% to 36.8% (-6.5%p yoy).

Table 6. REE ea	rnings fo	recast						(V	NDbn, %)
	1Q25F	2Q25F	1H25F			2025F		Conse	nsus
				уоу	qoq		уоу	1H25F	2025F
Revenue	2,495	2,384	4,879	21	12	9,685	12	-	9,994
Energy & water	1,159	1,040	2,199	13	(1)	4,334	3	-	
M&E	1,001	998	1,999	34	16	3,987	24	-	
Real estate	335	346	681	9	11	1,364	10		
NPAT	677	482	1,159	21	34	2,158	19	-	2,520

Source: Company data, Bloomberg, KIS Research estimate

2025F – Power and Real estate segment growth: We forecast the business result could be strongly boosted, with revenue of VND9,685bn (+12% yoy) and a NPAT of VND2,184bn (+19% yoy) thanks to:

- The utilities segment: The performance of the utilities segment is largely attributed to the energy segment, bolstered by stable hydrological conditions as the La-Niña phase is forecasted to continue until the second half of 2025F. Nonetheless, NOAA's data suggests that the La-Niña phase has not shown significant intensification. However, we believe that REE's energy segment is expected to sustain stable operations in 2025F, driving a 13% yoy growth in revenue for the utilities segment to reach VND2,199bn in 2025F.
- M&E segment: We forecast positive growth with revenue reaching VND1,999bn, an increase of 34% yoy in 2025F. This is due to more optimism about the backlog value of VND4,283bn (+314% yoy) for the whole year 2025F from the Long Thanh international airport project and a partial profit contribution from the REE Tech segment (+17% yoy).
- Real Estate segment: Expect the leasing office at Etown 6 to maintain

an occupancy rate of 70% in 2025F. Besides, the Bo Xuyen - Thai Binh phase 1 commercial housing project is projected to experience significant growth as the real estate market is anticipated to recover in 2025. This is expected to positively support total revenue for this segment, recorded at VND681bn (+9% yoy).

Valuation: REE is currently trading at a 1-year forward rolling P/E of 13.1x, which is 1.7 standard deviations (SDs) or 37% higher than its 5-year historical average P/E of 9.5x. In the long term, REE is expected to achieve significant growth due to the recovery in its electricity segment, driven by the return of the La Niña phenomenon, and the completion of the Etown 6 project in 2025. Bloomberg consensus has set a target price of VND 77,000, representing a 15.4% upside from the current market price.

Risks: (1) The primary concern is that changes in hydrological conditions could significantly impact REE's hydropower segment. Additionally, (2) the delay in policy approval for offshore wind power remains an issue.

PV POWER (POW)

HOLD (Maintain)

VNIndex (16 Jan, pt) Stock price (16 Jan, VND)	1,242 11,850	Yr to	Sales	OP	NP	EPS	BPS	ROE	ROA	P/E	P/B	EV/ EBITDA	DY
Market cap (USD mn)	1,093	Dec	(VND bn)	(VND bn)	(VND bn)	(VND)	(yoy)	(VND bn)	(x)	(x)	(x)	(%)	(%)
Shares outstanding (mn)	2,342	2022A	28,224	2,859	2,553	824	13,031	7.0	4.6	11.1	1.3	9.4	-
52-Week high/low (VND) 15,3 6M avg. daily turnover (USD mn	00/10,450) 3.35	2023A	27,945	1,404	1,329	430	13,430	3.5	2.1	19.8	0.8	22.0	-
Free float / Foreign ownership (%	,	2024E	29,965	1,572	1,357	542	13,972	4.2	1.6	21.3	0.9	22.8	-
Major shareholders (%) PVN	79.94	2025F	35,555	1,566	1,206	336	14,308	2.5	0.8	34.4	0.9	41.6	-
PYN Elite Fund	2.51	2026F	47,046	(657)	(908)	(363)	13,945	(2.7)	(0.8)	(31.9)	0.9	(54.4)	-

Source: Company data, KIS Research

Note: NP and EPS attributed to controlling interest

Performance

10 -5 -0 Jan-24

			1M	6M	12M
Abso	olute (%)		(4.4)	(20.5)	3.0
Rel.	to VNI (%p)		(2.9)	(18.3)	(5.8)
Sto	ck price	_			
20 15	(VND '000)	يوقع	'n		
15		part -	pour	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-

May-24

Source: Bloomberg

Sep-24

Waiting the NT3&4 project to come into operation

2024F – Business result maintains stable. We forecast POW's revenue of VND29,965bn, marking a 7% yoy growth. The primary driver was the increased output from Ca Mau 1&2 (Qm: 5,994mn kWh; +14% yoy) and Vung Ang (Qm: 5,760mn kWh; +33% yoy), NT2 (Qm: 3,036mn kWh; +5% yoy) supported by *(i)* growing electricity consumption demand in 2024 (+10% yoy) and *(ii)* lower-than-expected water flow at reservoirs. Consequently, NPAT surged to VND1,753bn (+32% yoy).

Table 7. POW earnings forecast	
--------------------------------	--

(VNDbn,	%)

	1Q25F	2Q25F	1H25F	1H25F		2025F		Consensus	
				уоу	qoq		уоу	1H25F	2025F
Revenue	6,838	8,740	15,579	(0)	8	35,555	18	-	41,877
GP	291	1,070	1,361	23	17	1,571	(30)	-	
EBT	345	1,118	1,463	100	11	1,566	(23)	-	
NPAT	276	894	1,170	75	7	1,206	(31)	-	1,548

Source: Company data, Bloomberg, KIS Research estimate

2025F – NPAT could face negative result. Revenue is projected at VND36,247bn (+18% yoy), primarily fueled by a higher generation volume of 21,055mn kWh (+31%). This growth stems from the commencement of operations at the NT3&4 project, along with an expanded output from Vung Ang 1 (+29% yoy) and NT2 (+5% yoy).

In contrast, NPAT is expected to decline sharply to VND1,068bn (-31% yoy) in 2025F, mainly due to:

- Hydropower plants: We expect the output of POW's hydropower plants to increase slightly thanks to the effect of the La-Niña phase lasting into 2H25F. However, the 6% yoy decline in FMP prices may impact the profitability of POW's hydropower plants in 2025.
- Coal-fired plants: We believe the outlook for the coal-fired power segment could improve due to Vung Ang's expected output growth of 33%, driven by the anticipated increase in the alpha Qc coefficient from 70% to 80% in 2025. However, we anticipate these advantages may not fully offset the sharp decline in CAN prices (-85% yoy) in 2025.
- Gas-fired power: According to EVN's mobilization data from option 4A,

to ensure electricity consumption demand continues to increase in 2025F (+11% yoy), the output of POW's gas-fired power plants is expected to continue to increase slightly (+2% yoy). However, we believed the increase of SMP is faster than the natural gas price as above mentioned. These advantages points could fully cover the plunge in CAN price. So, we believe the gross margin and profit of the gas-fired group could grow in 2025F.

- Additionally, we expect POW could receive ~VND750bn from insurance compensation for the incident at Vung Ang coal-fired power plant in 2025.
- NT3 & NT4: We forecast that when NT3 (June 2025) and NT4 (November 2025) commence operations in 2025F, they may record negative results in 2025F due to LNG prices remaining high và CF of the NT3 &4 plants can only reach 45%. Therefore, we anticipate this could have a significant impact on profit's POW in 2025F despite the positive factors mentioned above.

Valuation: As per the above analysis, POW could have a positive long-term outlook, given its critical role in maintaining system stability. However, the NT3 and NT4 projects pose significant risks as POW has not yet secured a committed Qc guarantee level for the PPA contract. Thus, we recommend a **HOLD** rating for **POW** on the watchlist.

Risks: *(i)* Changes in hydrological conditions could have a significant effect on the POW's output. Besides, *(ii)* challenges from coal and gas prices remain high. Moreover, *(iii)* the NT3 & NT4 projects pose significant risks as POW has yet to secure a high level of committed Qc (PPA).

Nhon Trach 2 (NT2)

HOLD (Maintain)

VNIndex (16 Jan, pt)	1,242				
Stock price (16 Jan, VND)	20,750				
Market cap (USD mn)	235				
Shares outstanding (mn)	288				
52-Week high/low (VND)	25,882/18,300				
6M avg. daily turnover (USD mn) 0.29					
Free float / Foreign owners	hip				
(%)	32.3/13.7				
Major shareholders (%)					
POW	59.37				
Company for Tech. Develo	pment 8.27				

									-	•	. ,
Yr to	Sales	OP	NP	EPS	BPS	ROE	ROA	P/E	P/B	EV/ EBITDA	DY
Dec	(VND bn)	(VND bn)	(VND bn)	(VND)	(yoy)	(VND bn)	(x)	(x)	(x)	(%)	(%)
2022A	8,788	1,082	883	2,961	16,027	20.0	12.6	11	1.3	8	8.7
2023A	6,386	510	473	1,586	15,062	10.6	6.0	15	1.6	14	2.9
2024E	6,073	22	87	291	13,853	2.1	1.0	65	1.4	2,112	7.6
2025F	5,942	52	71	446	12,799	3.5	1.7	43	1.5	142	7.6
2026F	5,349	(74)	30	100	11,398	0.9	0.4	191	1.7	(49)	7.6

Source: Company data, KIS Research

Note: NP and EPS attributed to controlling interest

Gas supply declines, gas prices remain high

Performance

		1M	6M	12M
Abso	olute (%)	4.8	(4.8)	(17.8)
Rel.	to VNI (%p)	6.4	(2.7)	(26.6)
Sto	ck price			
30	(VND '000)			
25	um			
20	hum	m		
15	-			
10	-			
5	-			
0	L			

Sep-24

Source: Bloomberg

May-24

Jan-24

2024E - NT2 could experience result negative. In 2024, NT2 recorded revenue of VND6,073bn (-5% yoy), despite output (Qm) increasing to 3,036mn kWh (+5% yoy). The decline was primarily driven by the impact of the alpha coefficient for contract output decreasing to 70% (compared to 80% in 2023). This resulted in lower contract volumes, meaning most of the output was sold at the contract price, which is significantly higher than the full market price (FMP).

As a result, NPAT saw a sharp decline, dropping to VND59bn (-737% yoy). The primary reasons include: (1) A high base in 2023, which recorded VND494bn; (2) Pressure from elevated gas prices (2024: 9.47 USD/mnBTU; +3% yoy), while the FMP price in 2024 is estimated to rise only 1% yoy.

Table 8. NT2 earnings forecast

Table 8. NT2 earnings forecast (VNDbn, %)									
	1Q25F	2Q25F	1H25F			2025F		Consensus	
				уоу	qoq		уоу	1H25F	2025F
Revenue	1,039	2,265	3,304	35	(9)	5,942	(2)	-	7,261
GP	(27)	271	244		107	73	226	-	
EBT	(20)	263	243	715	139	73	(45)	-	
NPAT	(20)	261	241		153	71	19	-	351

Source: Company data, Bloomberg, KIS Research estimate

2025F – Business result optimistic due to the output improve. We forecast that business results maintain stable, with revenue estimated at VND5,942bn (-2% yoy), supported by (i) an output of 3,118mn kWh (+3% yoy) and (ii) FMP prices are estimated to decrease by 6% in 2025.

In contrast, we expect NT2's NPAT is projected to record VND71bn (+19% yoy). The main reason comes from (a) heat rate efficiency to deteriorate in 2025F (-6% yoy). Besides, (b) getting benefits of the alpha coefficient rise from 70% to 80%, which means that most of the output is sold at the contract price, which is significantly higher than the FMP. And (c) the increase of SMP is faster than the NT2's gas price (+3% yoy). These advantages could fully cover the plunge in CAN price.

Valuation: We strongly believe in a positive outlook for NT2 in the long term, as it plays an important role in maintaining system stability. However, in the short term, we believe that NT2's market price has almost reflected its intrinsic value.

Therefore, we maintain a HOLD recommendation for NT2 in 1H25F.

Risks: *(i)* Challenges from high gas prices in the Southeast region persist. Additionally, *(ii)* the pressure from the depleting gas supply in the Southeast region is increasing. Moreover, *(iii)* the increase in wind power capacity in the system is also an adverse factor affecting NT2's capacity factor.

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