CHỨNG KHOÁN GUOTAI JUNAN (VIỆT NAM)
GUOTAI JUNAN SECURITIES (VIETNAM)

INDUSTRY OUTLOOK

ELECTRIC POWER 2026: RESHAPING

OUTLOOK: POSITIVE

Guotai Junan (VN) Research
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KEY CONTENT

POWER SECTOR AND ITS STRATEGIC ROLE IN ECONOMIC GROWTH (2026-2030)

In 2026, Vietnam is expected to continue speeding up the development process of power infrastructure. According to estimates from regulatory authorities and research organizations, **1% increase in GDP requires electricity growth to be 1.5 to 2 times higher**. In this context, even if GDP growth is maintained at a "high-normal" level (7–8%), electricity demand is projected to grow in double digits, placing significant pressure on the power system in the short to medium term.

High investment demand for power generation and transmission systems: According to the Power Development Plan VIII, total investment in power generation and transmission systems during the 2021-2030 period is estimated at USD 134.7 billion, of which USD 14.9 billion is allocated to the transmission sector. For the 2026-2030 period, the electricity sector requires USD 77.6 billion in investment, including USD 5.9 billion for transmission networks. By 2050, the total investment demand is expected to reach USD 700 billion.

Despite its strategic role in economic growth, the development of Vietnam's power sector still faces several challenges that require significant efforts for policy improvements, including:

- **Energy infrastructure, particularly green energy, remains underdeveloped.**
- **Policy innovation has occurred but remains slow:** Revised PDP VIII emphasizes prioritizing domestic gas - fired power projects to ensure national energy security and achieve economic growth objectives. Vietnam has discovered several large natural gas fields; however, key projects such as Block B and Blue Whale (Cá Voi Xanh) continue to face delays related to the development of consumption roadmaps and pricing mechanisms. Meanwhile, the feed-in tariff (FIT) policy for wind and solar projects affects existing projects, raising concerns among investors regarding policy sustainability and confidence in implementing future projects.

BUSINESS OUTLOOK - POWER SECTOR 2026

- **Hydropower:** The segment is expected to remain positive, supported by the La Niña phenomenon continuing until March 2026, before transitioning to a neutral phase with rainfall returning to long-term average levels. Rainfall in the Central Highlands and Southern region is expected to be above average, with March 2026 potentially recording 10–25 mm more rainfall than the historical average.
- **Coal-fired Power:** Given the assumption that hydropower output will not be as high as in 2025, coal - fired power generation is expected to improve, benefiting from more favorable pricing next year. This is anticipated to enhance both revenue and gross profit for companies in the sector. Additionally, coal-fired power enterprises will continue to benefit from the coal price downward trend. However, long-term price risks remain due to strong global electricity demand.
- **Gas-fired Power:** Capacity expansion is underway, particularly in LNG-based generation, with the first LNG power plant started going operations at the end of 2025. Nevertheless, the sector faces challenges due to its sensitivity to gas/LNG price fluctuations and domestic supply constraints.
- **Power Construction & Engineering Companies:** Backlog values are forecasted to continue growing in the upcoming period, driven by ongoing industry investments.

INVESTMENT OUTLOOK 2026

- **Power Stocks:** Coal-fired power stocks have a positive recovery potential under scenarios of reduced hydropower output and favorable coal prices. Hydropower remains positive but with a declining momentum.
- **Power Construction Stocks:** Large backlog volumes, coupled with investment cycles in generation and transmission projects according to Power Development Plan VIII (PDP VIII), support a positive outlook.

RECOMMENDED STOCKS: PC1, REE, POW

Source: Vietnam Power Development Plan VIII (PDP VIII), nangluongvietnamonline

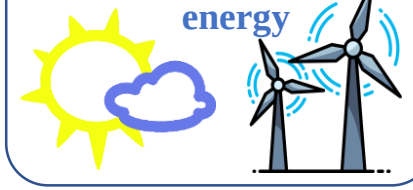
VALUE CHAIN OF VIETNAM ELECTRIC POWER INDUSTRY 2025

INPUT PRODUCTION

Coal
- TKV, Dong Bac corporation
- TKV, Dong Bac corporation

Hydropower

Renewable energy



Natural gas
- PV GAS
- Imports Indonesia

POWER GENERATION

Coal-fired thermal Power (46.2%)

Hydropower (32.6%)

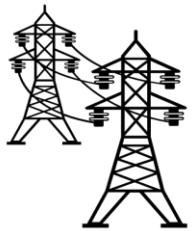
Renewable energy (12.1%)

Gas-fired power (9.1%)

POWER GENERATION

Transmission grid

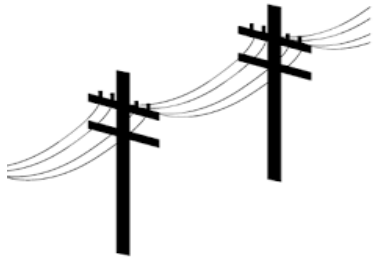
EVNNPT



Power market
- EVNNLDC
- EVNEPTC

DISTRIBUTION & RETAIL

Distribution network



5 Power Corporations
- EVNNPC
- EVNCPC
- EVNSPC
- EVNHANOI
- EVNHCMC

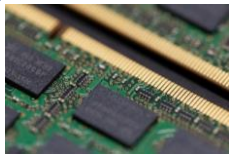
CONSUMPTION STRUCTURE

Industrial, Construction(55%)

Residential (34%)

Agriculture (4%)

Commerce & Services (4%)

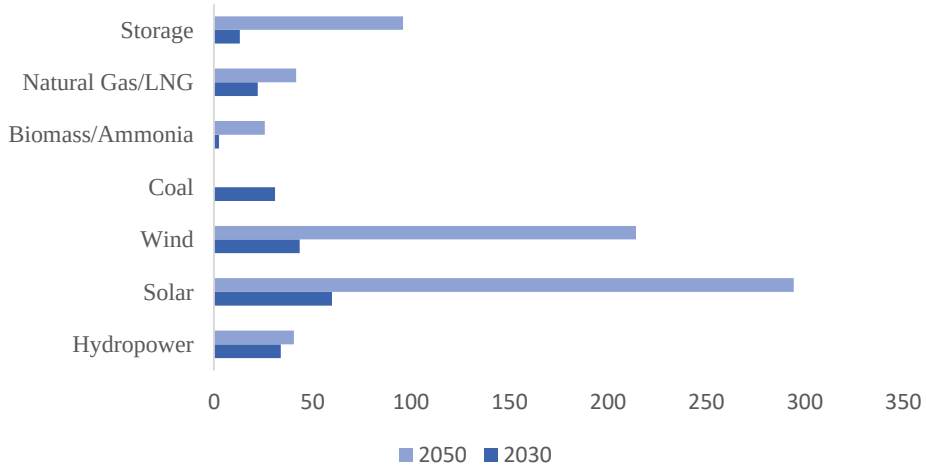


Other Consumption (4%)

ELECTRICITY POLICIES ISSUED / EFFECTIVE IN 2025

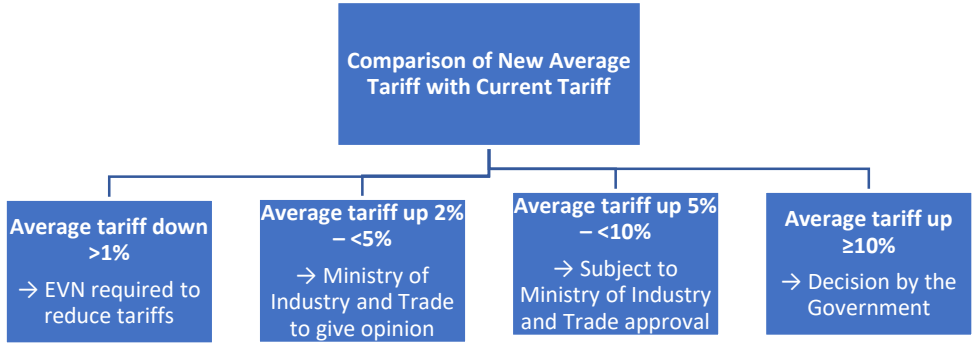
Legal Document	Effective Date	Main Content
Law on Electricity 2024	01/02/2025	Framework for regulating all power sector activities: planning, investment in generation and grid, competitive electricity market, power purchase and sale, electricity safety, renewable energy development
Decree No. 56/2025/ND-CP	03/03/2025	Guidelines for the Law on Electricity on planning, investment, and bidding for power projects
Decree No. 57/2025/ND-CP (DPPA)	03/03/2025	Direct Power Purchase Agreement (DPPA) mechanism between renewable plants and large customers (via private lines or the national grid), expanded renewable participation
Decree No. 58/2025/ND-CP	03/03/2025	Regulations on offshore wind power projects and renewable energy
Decree No. 72/2025/ND-CP	28/03/2025	Mechanism and timeline for adjusting average retail electricity tariffs based on actual costs of all stages from generation to distribution
Decision No. 07/2025/QD-TTg	31/03/2025	Regulation: Minimum average retail electricity price is 1,826.22 VND/kWh, maximum is 2,444.09 VND/kWh
Decision No. 768/QD-TTg (Revised PDP8)	15/04/2025	Adjusted installed capacity, added new sources, renewable priority
Decision No. 1415/QD-TTg	30/06/2025	Power sector development strategy to 2030, vision to 2050 (long-term orientation on generation and grid, human resources, technology)
Resolution No. 253/2025/QH15	11/12/2025	Mechanism and policies for national energy development (electricity, market, renewable energy, carbon, infrastructure)

Capacity Changes of Power Sources (GW)



Source: Revised PDP VIII

Mechanism for Adjusting Average Retail Electricity Tariffs in Vietnam



Source: Ministry of Industry and Trade

ECONOMIC GROWTH AND IMPLICATIONS FOR ELECTRICITY DEMAND

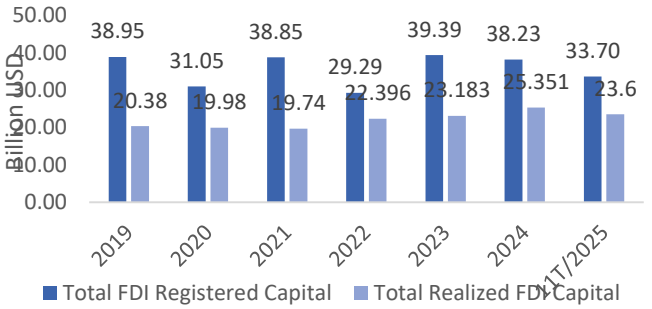
Macroeconomic Context: High Economic Growth and Urgent Demand for Electricity Supply Capacity

- In 2026, Vietnam's economy is expected to continue its positive growth performance compared to the region, with a double-digit GDP target in the baseline scenario and the possibility of reaching higher levels in favorable scenarios. The growth drivers come from the combination of **public investment, recovery in industrial production, expansion of the service sector, and attraction of new FDI flows.**
- In that context, electricity **demand keeps growing at a pace faster than GDP growth**, reflecting the increasingly important role of electric power in the process of industrialization, urbanization, infrastructure development, and digitalization of the economy. This linkage indicates that economic growth, regardless of which sector it originates from, clearly leads to a marked rise in electricity demand.
- According to estimates by regulatory agencies and research organizations, in Vietnam a **1% increase in GDP requires electricity growth to be 1.5 to 2 times higher**. Even when GDP growth remains at a "normally high" level of 7–8%, electricity demand still rises in the low double digits, placing significant pressure on the power system in the short and medium term.

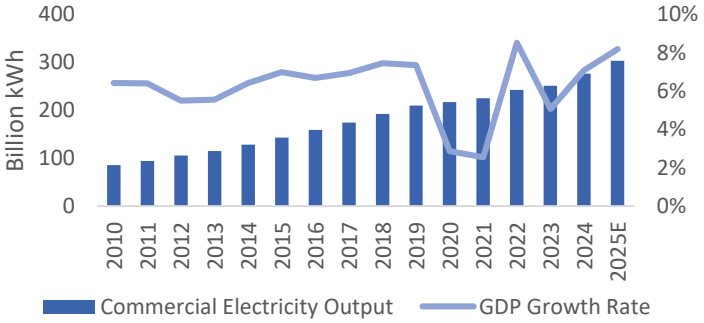
Focus on Capacity Expansion of the System

- According to EVN's report, by the end of 2025 the total installed generation capacity of the entire system (excluding electricity import capacity) reaches approximately **87,600 MW, an increase of about 6,400 MW** compared to 2024. The scale of Vietnam's power system ranks second in ASEAN in terms of installed generation capacity. Regarding grid development, in 2025 EVN and its units commence construction of 215 projects and complete energizing 260 projects at voltage levels from 110 kV to 500 kV, adding around 27,000 MVA of capacity and 3,900 km of transmission lines to the system.
- Regarding investment demand for the 2026-2030 period, total capital for developing generation sources and the transmission grid amounts to about 136.3 billion USD, of which investment in power sources is approximately 118.2 billion USD and in the transmission grid about 18.1 billion USD. For 2026 alone, EVN plans to commence 87 projects and to complete and energize 86 projects in order to ensure safe system operation and meet the rising demand for electricity.

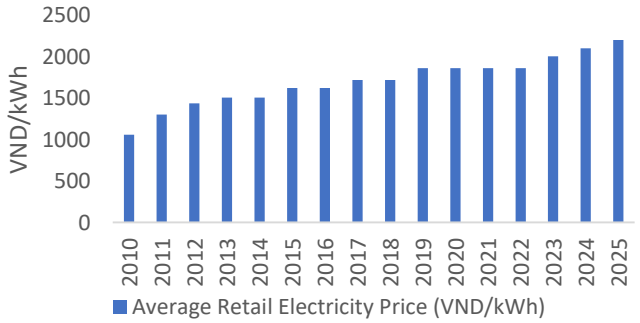
Trends in FDI inflows



Commercial Electricity Output



Average Retail Electricity Price



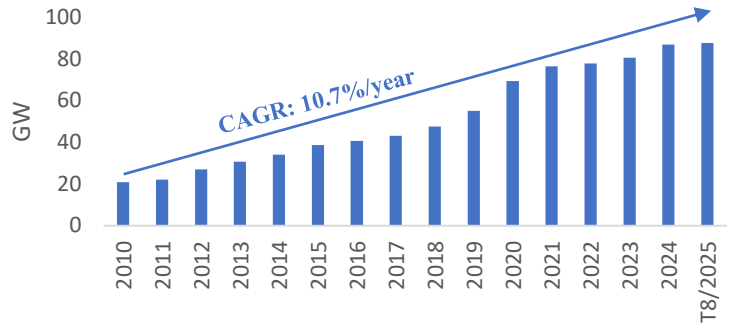
Source: EVN, GSO, MOIT, GTJASVN Research

Power Development Plan VIII Lays the Foundation for Strengthening Vietnam's Electricity Infrastructure

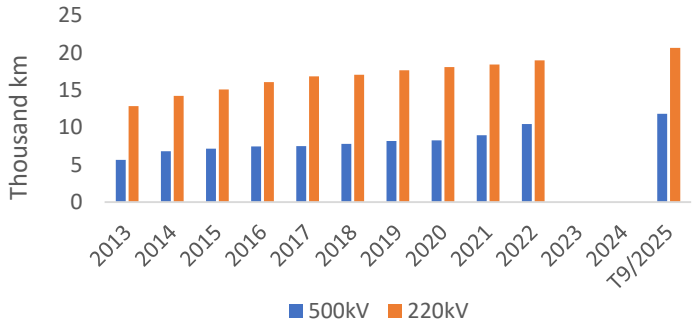
- PDP prioritizes supply security in the short term (2025–2026): Although the Revised PDP VIII ***pursues strong expansion in the long term, the immediate operational focus remains on ensuring adequate electricity supply as the progress of generation sources and grid development is still constrained.***
- Load pressure continues to rise: High economic growth and rapidly increasing Pmax force the system to operate under tight conditions, with total electricity output in 2025 estimated at around 331 billion kWh (+7.4% YoY).
- Operation in 2026 under multiple scenarios: The Ministry of Industry and Trade formulates three options for power system operation in 2026 (350–370 TWh), reflecting the need to prepare for higher load growth and potential supply risks.
- Baseload power sources remain dominant: During the transition period, coal-fired thermal power, hydropower, and gas turbines continue to serve as the core pillars for dispatch, while renewable energy is mobilized within the technical limits of the grid and the system balancing capability.

Scenario	2025 (Reference)	2026 - Baseline	2026 - High	2026 - Very High
Electricity Demand Growth (%)		10–12% (normal weather conditions)	13–14% (prolonged hot weather)	>15% (widespread extreme weather)
Electricity Output (TWh)	331.4	350.01	360.26	368.1
Electricity Output Growth (%)		10-12%	13-14%	>15%
Projected GDP Growth(%)		6.5-7%	>7%	>7.5%

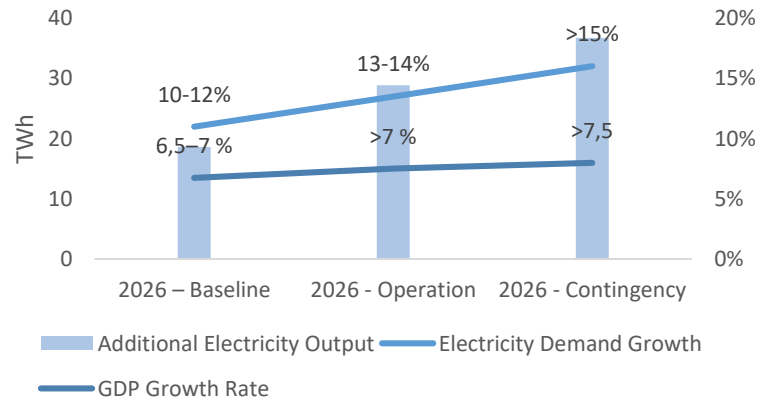
Installed power capacity in Vietnam



Transmission lines' length



Electricity Scenarios for 2026



Source: EVN, EVNPT, ERAV

Power Market Reform Creates a Solid Foundation for the Medium Term

The development roadmap for Vietnam's power market was launched many years ago, outlining a transition from the EVN monopoly model toward three stages: the competitive generation market (VCGM 2012), competitive wholesale market (VWEM 2019), and competitive retail market (VREM after 2025). The new legal framework includes the Electricity Law 2024, which for the first time clearly defines the term "competitive electricity market," and Circular 16/2025/TT-BCT, which finalizes the mechanism for VWEM and prepares the foundation for VREM, *according to Nangluongvietnam*.

Under the announced schedule, Vietnam is expected to:

- officially implement the competitive wholesale electricity market (VWEM) from July 1, 2026;
- progress to the competitive retail electricity market (VREM) from January 1, 2027.

During the initial period, these models will be operated under controlled pilot mechanisms, with limited participation scope and a restricted level of liberalization, in order to assess impacts and improve the institutional framework before broader expansion.

However, ***in the short term, power market reform has not yet significantly changed the supply - demand situation*** or the risk of Pmax shortages because:

- the structure of baseload and flexible power sources has not been improved in terms of physical infrastructure;
- electricity prices do not fully reflect scarcity during peak hours;
- the State's regulatory role remains dominant in system operation and dispatch.

Therefore, the impact of the competitive electricity market in the pilot stage is mainly institutional, rather than an immediate factor improving supply capacity.

In the long term, nevertheless, opportunities for enterprises are substantial. Energy investors will be more proactive in developing and selling electricity through market mechanisms; large electricity consumers will access flexible procurement instruments such as DPPA; and the future emergence of private electricity retailers will create a competitive, diversified, and more consumer-focused electricity ecosystem.

Summary

A synthesis of macroeconomic and policy factors shows that Vietnam's power sector is facing a growth paradox: electricity demand is rising rapidly in line with economic development, while the ability to promptly add new baseload generation and transmission infrastructure remains constrained. In this context, short-term policy prioritizes supply security and system stability, whereas planning reform and market liberalization serve as foundations for the medium- and long-term horizon.

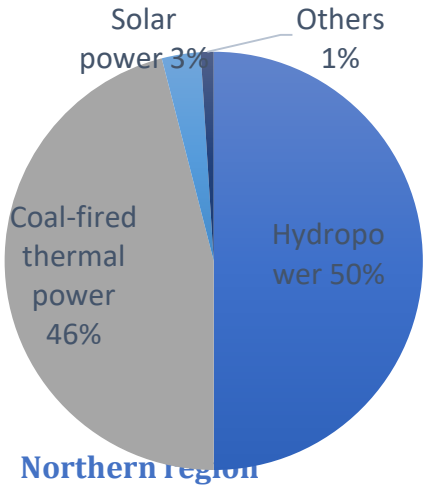
Source: nangluongvietnam.vn, PDP VIII

CURRENT STATUS OF ELECTRICITY GENERATION BY SOURCE IN 2025

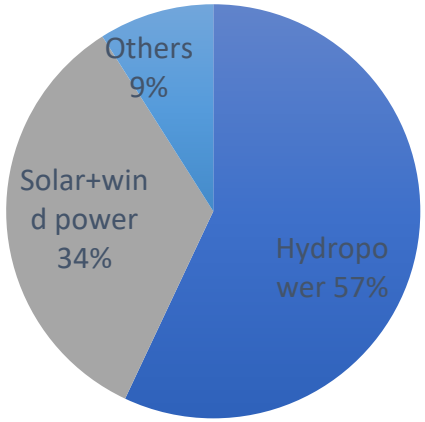
Uneven distribution of input resource endowments has led to an imbalance in electricity allocation among the three regions of Vietnam. Accordingly, coal-fired thermal power—the source accounting for the largest share of electricity output, installed capacity, and generation volume - is concentrated mainly in northern provinces such as Hai Phong, Hai Duong, and Quang Ninh. Hydropower plants are primarily located in areas adjacent to the three major river systems, namely the Da, Se San, and Dong Nai rivers. In contrast, gas-fired thermal power together with renewable energy sources (solar and wind power) are concentrated in the central and southern regions. These power plants have been developed on a regional and geographically clustered basis, taking advantage of favorable locations for input fuels as well as technical production requirements, thereby contributing to the reduction of input costs and improving economic efficiency in electricity generation.

REGIONAL STRUCTURE OF INSTALLED GENERATION CAPACITY

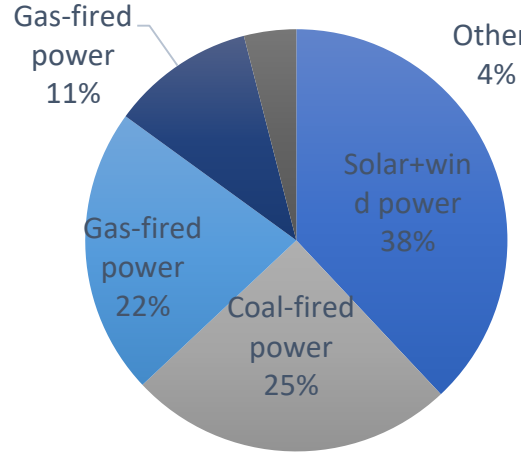
Year 2020



Northern region

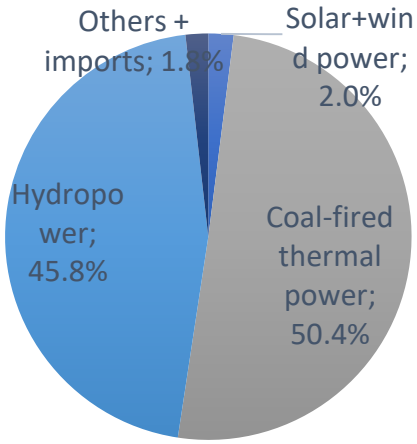


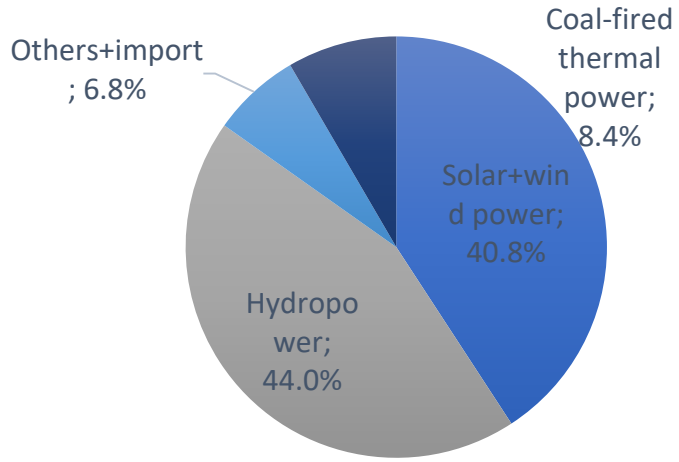
Central region

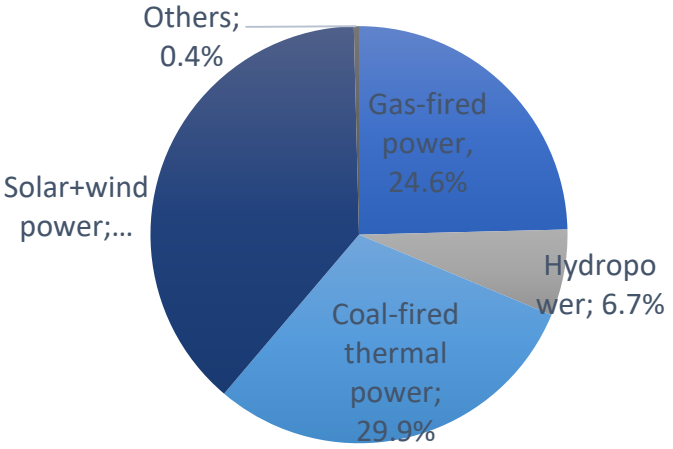


Southern region

Year 2024







Source: EVN, GTJASVN Research

CURRENT STATUS OF ELECTRICITY GENERATION BY SOURCE IN 2025

1. THERMAL POWER

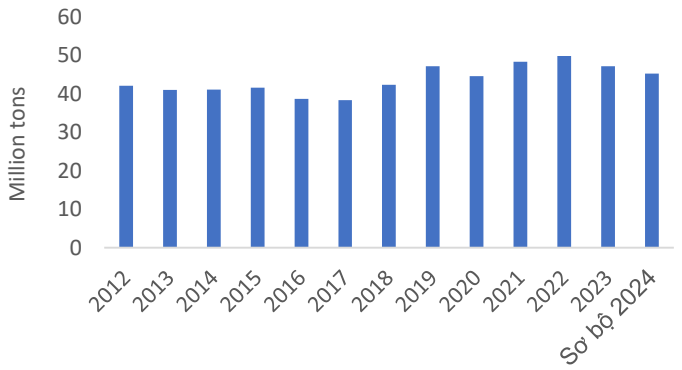
1.1. Coal-fired power continues to serve as a baseload source, benefiting from lower coal prices, while dispatch declines due to hydropower prioritization in 2025

Within Vietnam's power generation mix, coal-fired power continues to play a key role in system operation. Although its share of installed capacity is only around 30–32%, coal-fired power contributes nearly half of total electricity generation, reflecting a high availability factor and stable generation capability across most time periods. In the context of rapidly increasing peak capacity, concentrated in the evening, coal-fired power is one of the few sources capable of ensuring continuous baseload supply, particularly in northern Vietnam, the region facing the greatest load pressure. However, the scope for future expansion of coal-fired power capacity is very limited due to environmental, financial, and policy constraints related to emissions reduction. Therefore, the outlook for coal-fired power in the coming period is characterized more by maintaining its operational role than by expanding scale, with a focus on optimizing efficiency and ensuring the reliability of existing plants.

Alongside efforts to enhance internal efficiency, imported coal continues to play a strategic role in ensuring energy security, with coal import volumes increasing steadily in recent years amid declining import prices. During the first nine months of 2025, imported coal prices averaged approximately USD 102.2 per ton, down 17.1% year on year. Under Decree No. 174/2025/NĐ-CP, the value-added tax on coal was reduced from 10% to 8%, and coal demand is therefore expected to increase in the future. Over the longer term, the sector is oriented toward the establishment of a fully competitive coal market after 2030 and preparations for the pilot development of the Red River coal basin before 2040, creating potential for more sustainable development in the energy sector.

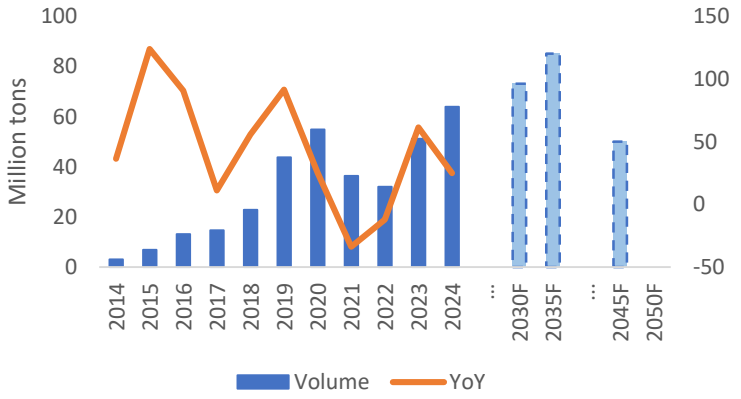
Vietnam is expected to continue increasing coal imports in a context where (1) the global coal market has entered a period of stabilization as growth in coal demand for power generation slows to around 1.5% year on year, and (2) oversupply conditions, particularly in the Chinese market, combined with high inventory levels, have pushed international thermal coal prices down to their lowest level since 2021 and kept prices low during the first half of 2025. This creates an important short-term opportunity for coal-importing countries such as Vietnam, as input costs for coal-fired power generation become more reasonable, contributing to the stabilization of domestic retail electricity prices. However, this is only a temporary factor, as the International Energy Agency forecasts that global coal trade volumes will contract over the next two years, while Vietnam is among the few major importing countries expected to increase imports, indicating that underlying demand for power generation remains strong and long-term price pressures remain latent.

Coal production in Vietnam



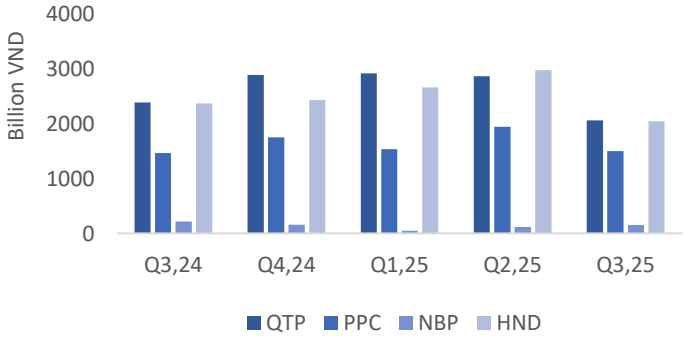
Source: GSO, Draft coal industry development strategy

Coal import volume in Vietnam



Source: Vietnam Customs

Thermal power enterprise revenue



Source: FiinproX, GTJASVN Research

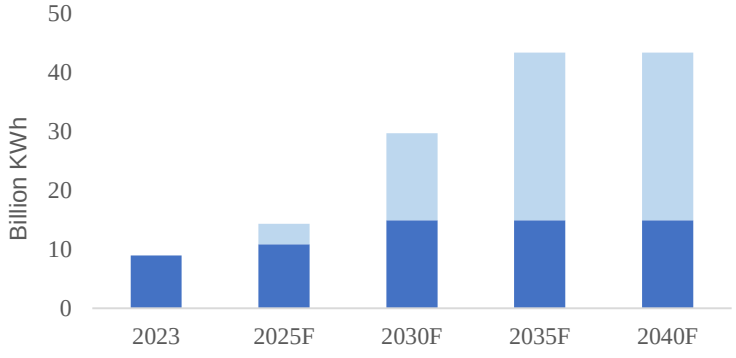
1.2. Gas-fired power and LNG – a policy transition source constrained by costs and infrastructure

Gas-fired power, particularly LNG, is positioned as a transitional baseload source in the strategy to reduce reliance on coal and move toward lower emissions. The year 2025 marks a significant milestone, as the first two LNG-fired power plants in Vietnam officially commenced operations (Nhon Trach 3 and 4). At the same time, several other LNG projects are in the early stages of development.

From a technical perspective, combined-cycle gas power plants offer greater operational flexibility and lower emissions compared with coal-fired power. However, in Vietnam, the short-term role of gas-fired power remains limited due to declining domestic gas supply, high and volatile imported LNG costs, as well as unresolved issues related to contractual mechanisms and project financing. Large-scale LNG projects require an electricity pricing structure that is sufficiently attractive and stable to ensure financial viability, while this remains a key bottleneck that has yet to be fully addressed. As a result, in 2026, LNG-fired power is unlikely to become a core power source and will instead primarily play a supplementary and tactical role during periods of system stress.

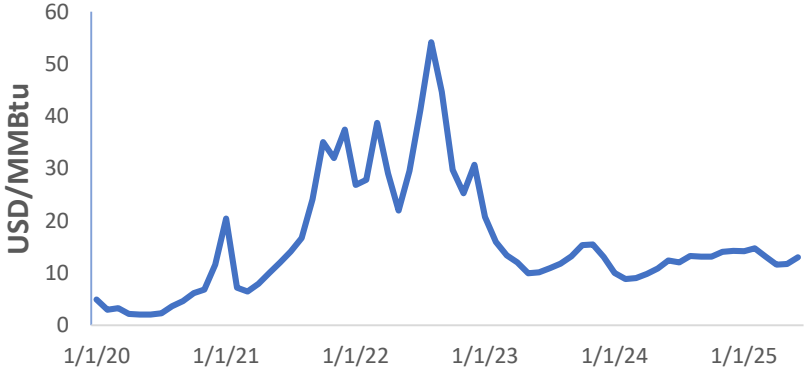
Within the gas-fired power segment, business performance in 2025 continued to show clear divergence among enterprises. POW recorded the most stable performance, with net profit after tax increasing consistently across quarters and reaching VND 948 billion in Q3 2025 (nearly nine times higher than at the end of the previous year), despite revenue fluctuating only slightly at around VND 7,855 billion. NT2 also posted a notable improvement, with net profit after tax rising sharply to VND 326 billion in Q3 2025, although revenue experienced seasonal adjustment and reached VND 2,081 billion. In contrast, PGV exhibited a lack of stability, with profits fluctuating significantly, including a loss in Q2 and net profit after tax of only VND 167 billion in Q3 2025 on revenue of VND 8,346 billion. Finally, BTP remained the company with the least stable profit margin: despite Q3 2025 revenue of VND 67.8 billion, net profit after tax reached only VND 8.5 billion, reflecting unsustainable operating efficiency. Overall, the gas-fired power group continues to display a high degree of divergence, with POW and NT2 maintaining stronger performance relative to other enterprises.

Gas-fired power capacity under PDP VIII



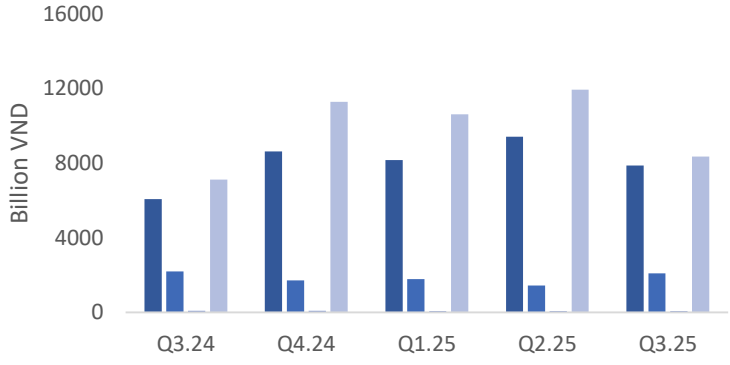
Source: Submission No. 4967/TTr-BCT, 8/2022

Asian LNG prices



Source: Bloomberg

Gas-fired power enterprises revenue



Source: PVGAS, GTJASVN RS

LIST OF MAJOR GAS-FIRED POWER PROJECTS IN THE 2025–2030 PERIOD UNDER THE REVISED PDP VIII

Project	Planned capacity (MW)	Investor	Expected completion	Status
Quang Ninh LNG	1,500	PV Power – Colavi – Tokyo Gas – Marubeni	2028–2029	Construction expected to start in early 2026
Thai Binh LNG	1,500	Tokyo Gas, Kyuden Int., Truong Thanh VN	2028	Under construction
Quang Trach II LNG	1,500		2028	FS under preparation
Hai Lang LNG – phase 1	1,500	T&T Group, KOGAS, KOSPO	2028–2029	Construction started in 2022 but progress has been slow
Nhon Trach 3 and Nhon Trach 4 power plants	1,624	PV Power	2025	Commercial operation from late 2025
Hiep Phuoc LNG – phase I	1,200	Hiep Phuoc Power Co., Ltd. (HPPC)	2028 (potentially brought forward to 2027)	Under construction
Long An LNG I	1,500	VinaCapital GS Energy Pte. Ltd.	2028–2029	FS under preparation
Son My I BOT gas power plant	2,250	EDF – Kyushu EP – Sojitz – Thai Binh Duong Group JSC	2028	
Son My II BOT gas power plant	2,250	AES Group	2028	
Bac Lieu LNG (*)	3,200	Delta Offshore Energy (DOE)	2025–2030	
Nghi Son LNG (*)	1,500	POSCO International	2028	Part of the Quynh Lap – Nghi Son LNG project cluster; construction expected to start in January 2027
Ca Na LNG (*)	1,500		2028	At the final stage of investor selection
Hai Phong LNG – phase I	1,600	VinEnergo Energy JSC	2030	Under construction
Hiep Phuoc LNG – phase II	1,500	Hiep Phuoc Power Co., Ltd. (HPPC)	2025–2030	
Long Son LNG (*)	1,500		2031–2035	Investor search ongoing
Long An LNG II	1,500	VinaCapital and GS Energy	2031	
Cong Thanh LNG (**)	1,500	VinaCapital and GS Energy	2031–2035 (potentially 2026–2030)	MOU signed
Hai Phong LNG – phase II (**)	3,200	VinEnergo Energy JSC	2031–2035 (potentially 2025–2030)	
Vung Ang III LNG (**)	1,500		2031–2032	PV Power proposed as investor
Quang Trach III LNG (**)	1,500		2031–2035	

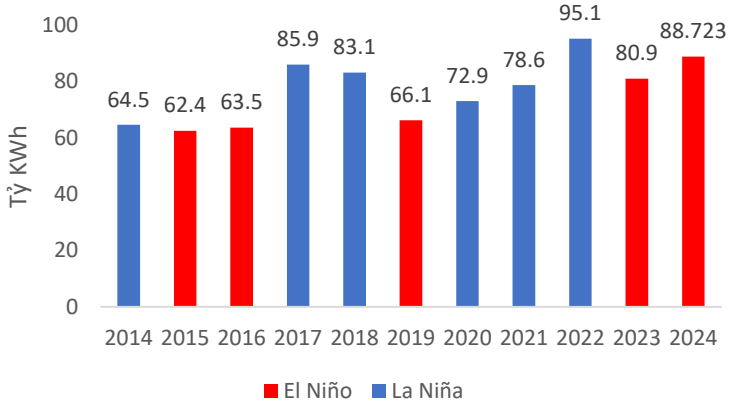
Source: Revised PDP VIII, GTJASVN Research

2. HYDROPOWER – POSITIVE PERFORMANCE IN 2025 SUPPORTED BY FAVORABLE HYDROLOGICAL CONDITIONS

Capacity expansion and the development of pumped-storage hydropower. Under Power Development Plan VIII (Decision No. 768/QĐ-TTg), total hydropower capacity (including small hydropower) is projected to increase to 33,294–34,667 MW by 2030, equivalent to an increase of approximately 41–47% compared with 2022, and to reach 40,624 MW by 2050 (an additional increase of around 20% relative to the 2030 level). Hydropower capacity expansion is oriented toward maximizing the remaining potential while ensuring environmental, forest, and water resource protection, rather than pursuing large-scale developments indiscriminately.

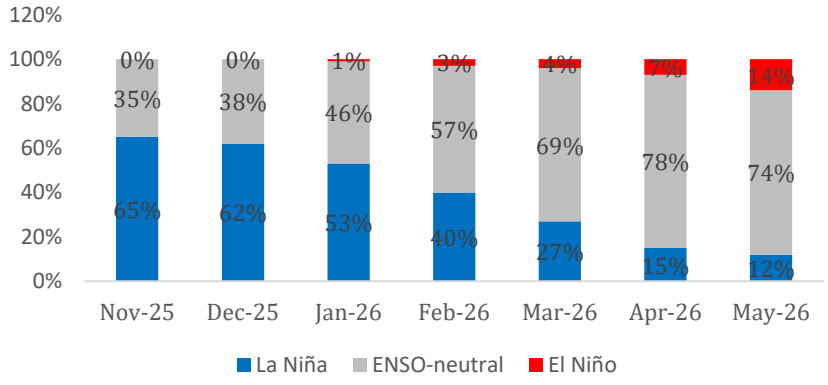
Positive business performance in late 2025 and early 2026 driven by favorable hydrological conditions. According to forecasts, hydropower enterprises are expected to benefit from a La Niña phase emerging from the last three months of 2025 through early 2026. A high probability of La Niña indicates abundant rainfall in northern and central Vietnam, enabling hydropower reservoirs to achieve strong water storage levels and supporting a robust recovery in electricity output. From March 2026 onward, La Niña is expected to weaken and ENSO-neutral conditions to prevail, with average inflows to reservoirs. As a result, hydropower output is expected to remain stable, and hydropower generation is forecast to continue maintaining stable production levels without significant ENSO-related impacts through the end of Q3 2026.

Hydropower generation in Vietnam



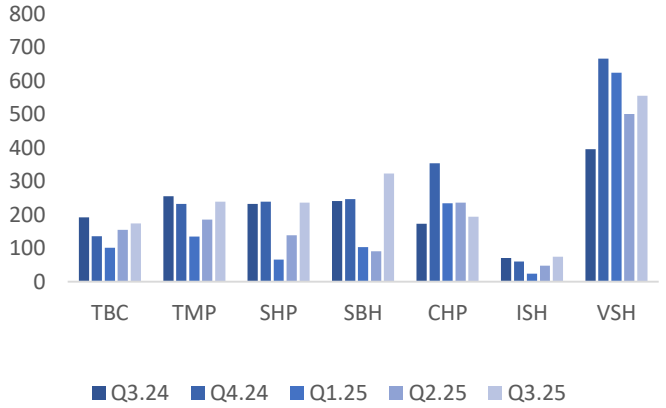
Source: EVN, GTJASVN Research

ENSO phase forecast



Source: NOAA, IRI, GTJASVN Research

Hydropower enterprises revenue



Source: FiinproX, GTJASVN Research

2. HYDROPOWER – POSITIVE PERFORMANCE IN 2025 SUPPORTED BY FAVORABLE HYDROLOGICAL CONDITIONS

- In November 2025, Hoa Binh 2 Hydropower Plant officially commenced operation. At the same time, progress was ensured for key power source projects, including the Hoa Binh Hydropower Expansion Project, with Unit 2 generating electricity in November 2025 and efforts made to complete the entire project by December 2025. Resources were mobilized and close supervision maintained to accelerate site clearance in order to proceed with construction of the Tri An Hydropower Expansion Project. In addition, construction of the Bac Ai pumped-storage hydropower project was implemented in accordance with the signed contract schedule.
- Regarding power grid investment and development, implementation progress was accelerated to energize the 220 kV Tuong Duong – Do Luong and Do Luong – Nam Cam transmission lines. Construction of the Hoa Binh 2 500 kV switching station and its grid connection was initiated in the fourth quarter of 2025. Progress was also expedited for the four-circuit 500 kV transmission line connecting to the Thanh My 500 kV substation.

List of hydropower projects under the PDP VIII implementation plan

Project	Add. Cap. (MW)	Investor	COD	Status
HB HPP Exp.	480	EVN	2025	Completed
Yen Son HPP	90	Binh Minh Group	2026	Under construction
Nam Cum HPP 1,4,5	100.8	Muong Te Power Dev. JSC	2025–2030	Units 4,5 completed; Unit 1 under constr.
Nam Cum HPP 2,3,6	83	Muong Te Power Dev. JSC	2027	Units 2,3 completed; Unit 6 land allocated
Hoi Xuan HPP	102	VNECO	2027	Inv. policy under adj.
My Ly HPP	120	My Ly–Nam Mo HPP JSC	2029–2030	Inv. policy under adj.
Nam Mo 1 HPP (VN)	51	My Ly–Nam Mo HPP JSC	2029–2030	Inv. policy under adj.
Ialy HPP Exp.	360	EVN	2024	Completed
Dak Mi 1 HPP	84	BB Group	2026–2030	Under construction; Unit 1 COD est. 2026
Tri An HPP Exp.	200	EVN	2027	Under construction

Source: Revised PDP VIII, GTJASVN Research

3. RENEWABLE ENERGY (INCLUDING SOLAR AND WIND) – GROWTH WITH INSTABILITY

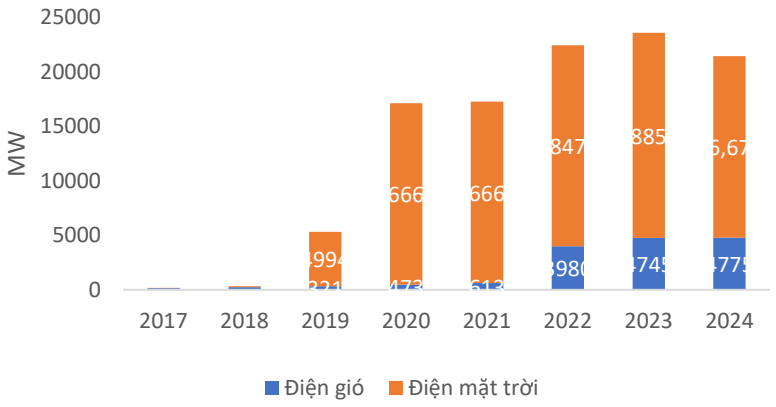
The year 2025 is considered a critical action year, as multiple policies began to be materialized, facilitating the commissioning of renewable energy projects. According to the revised National Power Development Plan (PDP VIII), approved in April 2025, the targeted scale of renewable energy capacity by 2030 has been significantly increased, with solar power set at 46–73 GW and onshore wind power at 26–38 GW (excluding offshore wind). This reflects an accelerated capacity development trajectory over the 2025–2030 period.

However, there remains a substantial gap between planned capacity growth and actual installation, primarily due to the fact that many projects have not yet been able to sign power purchase agreements (PPAs). By mid-2025, only around 16 out of 85 transitional renewable energy projects (approximately 943 MW) had finalized tariff agreements with EVN. This highlights that market bottlenecks and pricing mechanisms continue to be major challenges during the year.

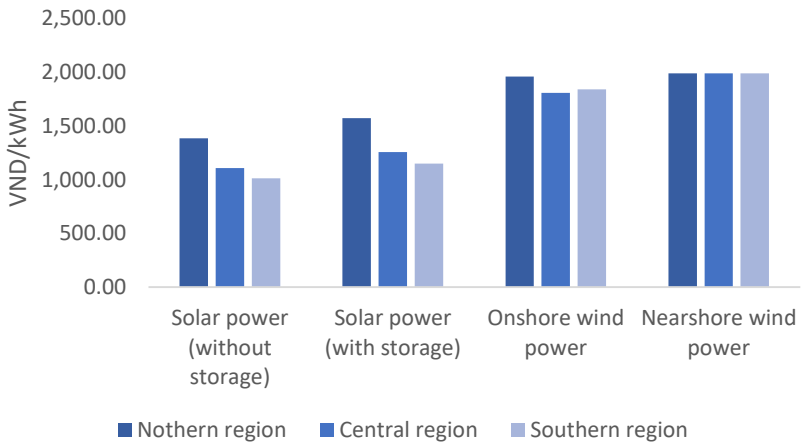
Offshore wind power – long-term potential, but not a near-term operating source

Offshore wind power is assessed to have significant long-term potential in terms of scale and output and is well aligned with the energy transition agenda. However, this segment is characterized by high technical, legal, and financial complexity, with lengthy preparation and implementation timelines. Under current conditions, most offshore wind projects remain at the research or preparatory stage and are unlikely to make a material contribution to the power system before 2030. Therefore, in the 2026 outlook, offshore wind should be regarded as a long-term strategic option rather than a near-term operational variable.

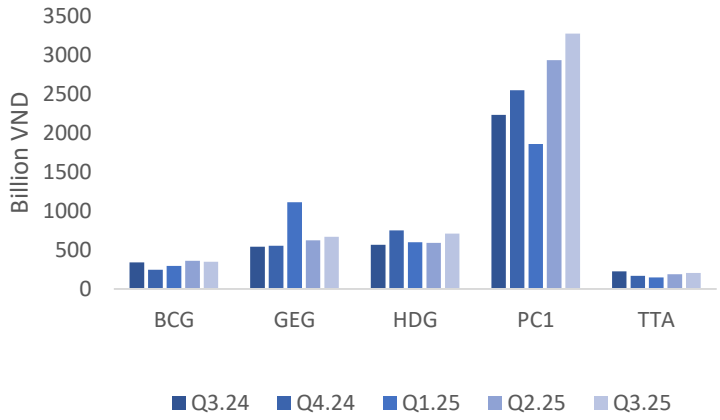
Renewable energy capacity



2025 electricity generation price framework by region



Renewable energy enterprises revenue



Source: MOIT, EVN, VEA GTJASVN Research

3. RENEWABLE ENERGY (INCLUDING SOLAR AND WIND) – GROWTH WITH INSTABILITY

Renewable energy power planning under PDP VIII

Power source type	Capacity under PDP VIII	Additional capacity expected 2024–2030 (MW) under revised PDP VIII
Solar power	12,836 MW	46,459 – 73,416 MW
Onshore wind power	21,880 MW	26,066 – 38,029 MW (onshore & nearshore)
Offshore wind power	6,000 MW	6,000 – 17,032 MW
Biomass & waste-to-energy	2,270 MW	2,964 – 4,836 MW
Flexible sources (flexibilization of thermal/gas plants, etc.)	300 MW	2,000 – 3,000 MW
Pumped-storage hydropower	2,400 MW	2,400 – 6,000 MW
Battery energy storage systems (BESS)	300 MW	10,000 – 16,300 MW

Source: VEA, GTJASVN Research

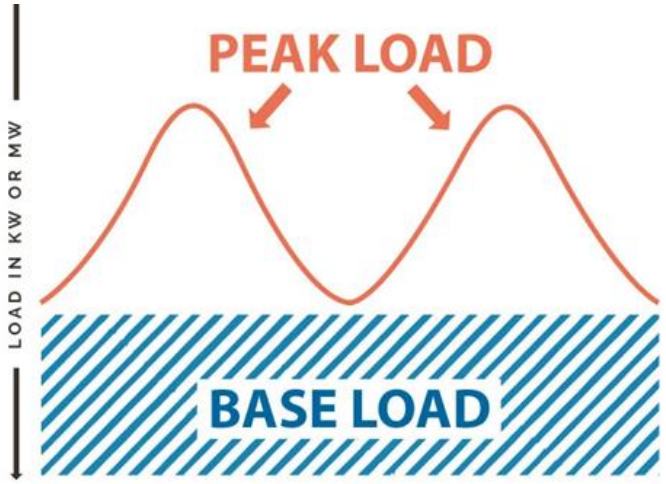
Energy storage and load management – the missing piece of the system

The absence of sufficient storage capacity and effective load management mechanisms is one of the reasons why the system value of renewable energy sources has not been fully realized. Energy storage can help shift surplus electricity from daytime to peak hours, while also providing frequency regulation and peak-shaving services.

However, at present, the scale of storage in Vietnam remains very limited and is insufficient to bring about a significant change in the way power sources are dispatched. Therefore, energy storage and load management measures currently play only a supportive role and cannot yet replace baseload power sources in ensuring supply security. The role of these solutions is expected to become more prominent in the medium term, as the hourly electricity market and ancillary service mechanisms are further developed.

4. NUCLEAR ENERGY – REACTIVATION

The development of nuclear power in Vietnam is being vigorously restarted under the Revised Power Development Plan VIII (2025), aiming to bring the Ninh Thuan 1 & 2 plants (4–6.4 GW) into operation during 2030–2035. This initiative seeks to ensure national energy security and meet the high growth in electricity demand. The focus is on strengthening institutional frameworks and addressing legal and technological challenges. Despite facing constraints in human resources and capital, the plan still prioritizes the development of small modular reactors (SMRs) through 2050.



OVERALL CONCLUSION ON POWER SOURCES

A synthesis of the above analyses indicates that during 2025–2026, Vietnam's electricity supply security will continue to rely primarily on existing baseload and flexible power sources, while renewable energy sources play a supplementary role but have not yet addressed the challenge of meeting the system's peak capacity. The medium-term outlook of the power sector will depend on the ability to improve the generation mix, develop grid and storage infrastructure, and implement energy market reforms and planning measures in a timely manner.

ELECTRICITY SECTOR STOCKS AND INVESTMENT PERSPECTIVES

Investment views and recommended stocks:

- Under a scenario where El Niño returns from next year, rainfall is projected to be below the long-term average, resulting in less favorable hydrological conditions and reduced hydropower output. With hydropower no longer serving as the main flexible source, the system will increasingly rely on coal-fired thermal generation to compensate for baseload shortages, particularly during peak demand periods.
- Consequently, the investment outlook shifts from hydropower to coal-fired thermal power, with hydropower remaining suitable mainly for companies with large reservoirs, while coal-fired plants are expected to directly benefit under El Niño conditions.

- In the context of the Revised PDP VIII prioritizing a transition in the energy mix, wind and solar power continue to be encouraged for development in the medium to long term. However, in the short term (2025–2026), the dispatch of renewable energy is limited by transmission grid capacity and system balancing requirements, especially as the share of variable sources continues to rise.
- Consequently, the investment outlook focuses on companies owning renewable energy portfolios that are already operating stably, located in favorable regions, and with low curtailment rates, rather than on new projects that have not yet completed pricing mechanisms. The strategy for this group is selective and medium- to long-term, suitable for investors willing to accept short-term volatility to benefit from the energy transition trend.

INVESTMENT RECOMMENDATIONS

PC1 – ACCUMULATE – 25,100 VND (+11.3%)
REE – ACCUMULATE – 68,100 VND (+11.16%)
POW – NEUTRAL– 13,300 VND (+4.7%)

Source: GTJASVN Research

ELECTRICITY SECTOR STOCKS AND INVESTMENT PERSPECTIVES

Pressure and opportunities in the context of electricity demand continuing to grow in double digits in 2026:

According to the approved national power system operation plan for 2026, three main scenarios have been outlined: the base case (~350 TWh), the operational scenario (~360–365 TWh), and the reserve scenario (~368–370 TWh). All scenarios indicate a double-digit growth in generation capacity in 2026, opening growth prospects across different power generation types.

- *The central power system operation center (CSO) forecasts that in 2026, electricity demand in the central region will increase by 9% compared to 2025, with total output exceeding 33 TWh. Meanwhile, the system is expected to receive over 1,600 MW of new generation capacity along with several key grid projects.*
- *Electricity demand in the northern region has consistently risen over the years and is projected to continue growing at an average of around 10%. Peak-day capacity and output have accounted for approximately 52% of the national power system, whereas northern power sources represent only about one-third of total system capacity. This creates significant pressure on system operation and dispatch, requiring the system to maintain safe, stable, and continuous operation*.
- **The deputy general director of EVN noted that nationwide electricity demand is expected to increase by 8–10% in 2026**, with industrial demand growing by around 6%. *Considering weather factors, demand is projected to continue rising in the coming years. Calculations indicate that supply-demand balance can be fundamentally maintained; however, there may still be risks of localized capacity shortages at certain times, particularly in areas where the 500 kV transmission grid is operating at full load or under low voltage conditions. EVN has instructed its units to accelerate 21 projects for capacity expansion and grid upgrades, aiming for completion before April 30, 2026, while also preparing peak-load management measures to ensure optimal system operation.*

While the implementation of power projects is being accelerated-most projects are deployed and completed on schedule-significant challenges remain due to high demand. According to the northern power transmission project management board (NPMB), the investment plan at the beginning of the year assigned by EVNNPT was VND 2,749.064 billion. As of the reporting date, the executed volume reached VND 4,743.62 billion (172%), with disbursement of VND 4,012.29 billion (145%). It is expected that by the end of 2025, the executed volume will reach VND 4,752.56 billion, with disbursement of VND 4,226.72 billion, essentially fulfilling the annual plan. Regarding commissioning, in 2025 NPMB completed energization of 9 projects. In 2026, NPMB plans to focus resources to commence 13 projects and commission 11 projects within the year.

Source: GTJASVN Research

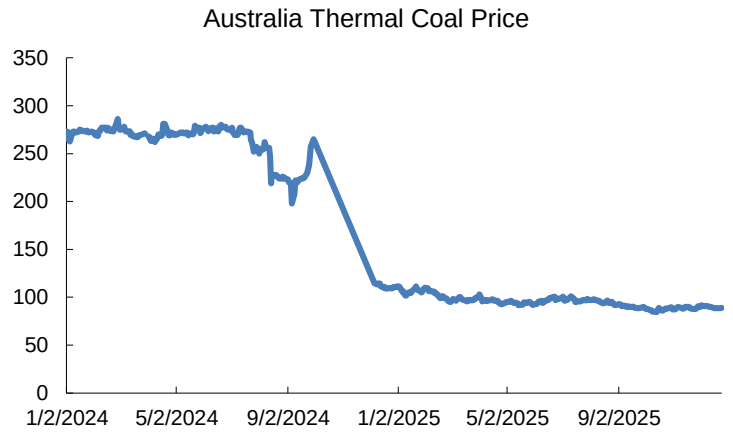
ELECTRICITY SECTOR STOCKS AND INVESTMENT PERSPECTIVES

Business results of electricity sector companies in 2025:

- **Coal-fired power** companies faced difficulties in 2025 due to the prioritization of hydropower dispatch under favorable water inflows and a decline in average dispatch prices. Nevertheless, overall profit margins of coal-fired power companies remained relatively stable thanks to favorable coal prices.
- Most **hydropower** companies recorded positive business results, supported by increased generation and improved profit margins.
- **Power construction** companies achieved solid revenue and profit growth due to higher construction volumes and a large backlog.

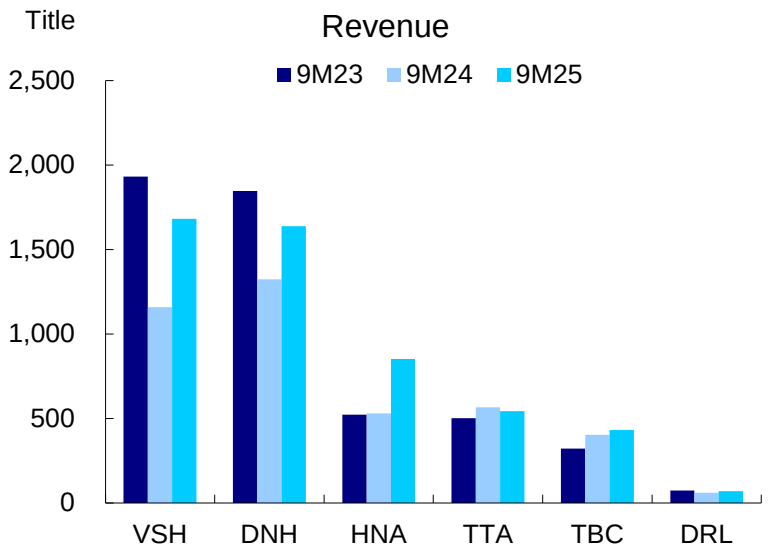
Business outlook for 2026:

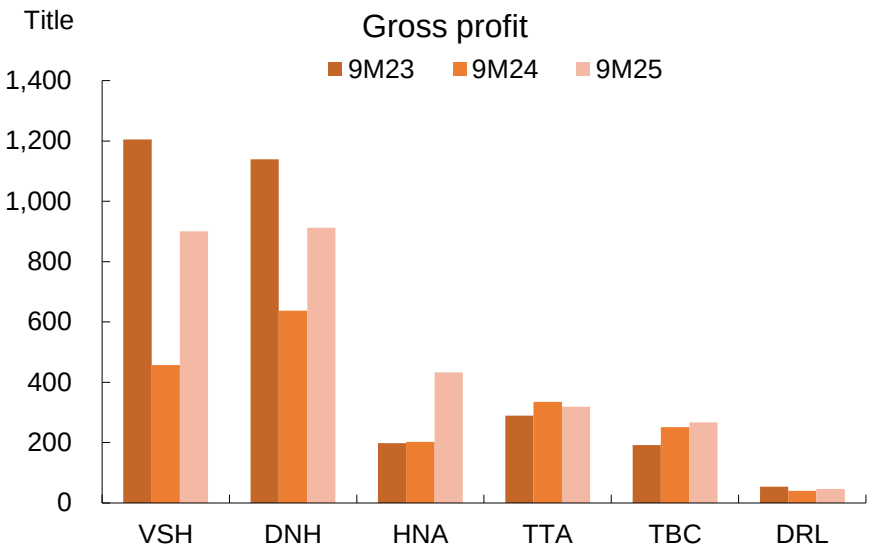
- **Hydropower:** Outlook remains positive thanks to the La Niña forecast persisting until March 2026, followed by a neutral phase with rainfall close to the long-term average. Rainfall in the Central Highlands and southern regions is expected to be above average, with March 2026 potentially exceeding the historical average by 10–25 mm.
- **Coal-fired power:** Hydropower dispatch in the system is expected to be lower than in 2025. Based on this premise, coal-fired generation is projected to increase with better pricing, which should improve revenue and gross profit for sector companies. Short-term benefits are expected from declining coal prices, although long-term price risks remain due to high electricity demand.
- **Gas-fired power:** Installed capacity is expanding; however, performance is sensitive to fluctuations in gas prices and domestic supply availability.
- For **power construction companies**, backlog value is expected to continue strong growth in the coming period.

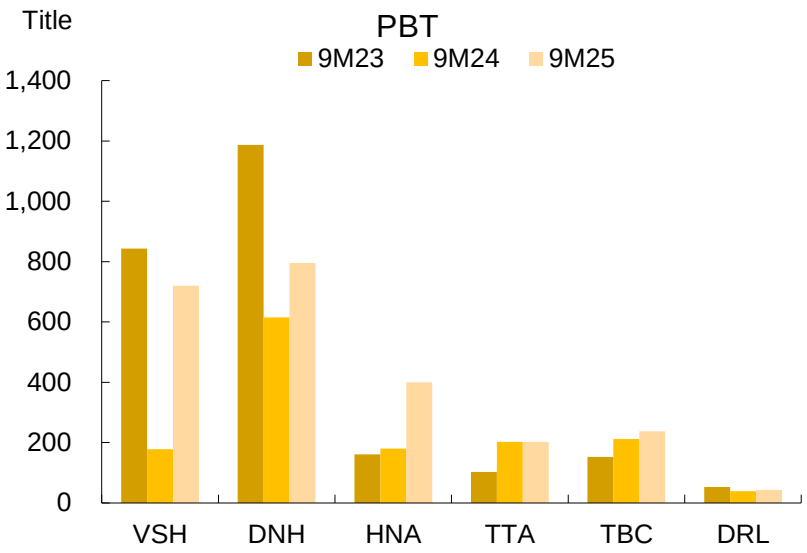


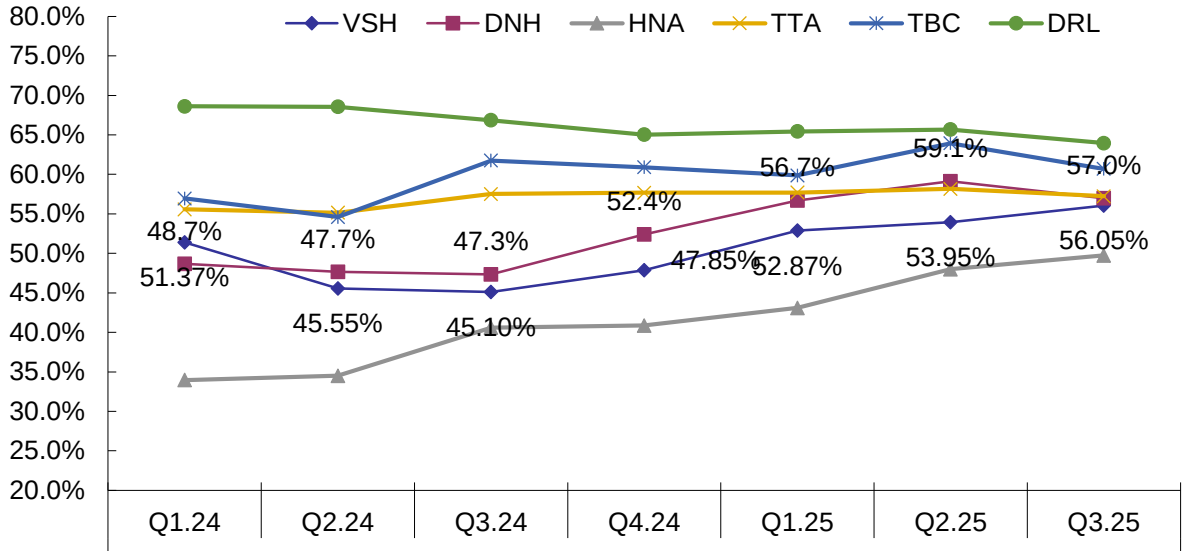
Source: Bloomberg, GTJASVN Research

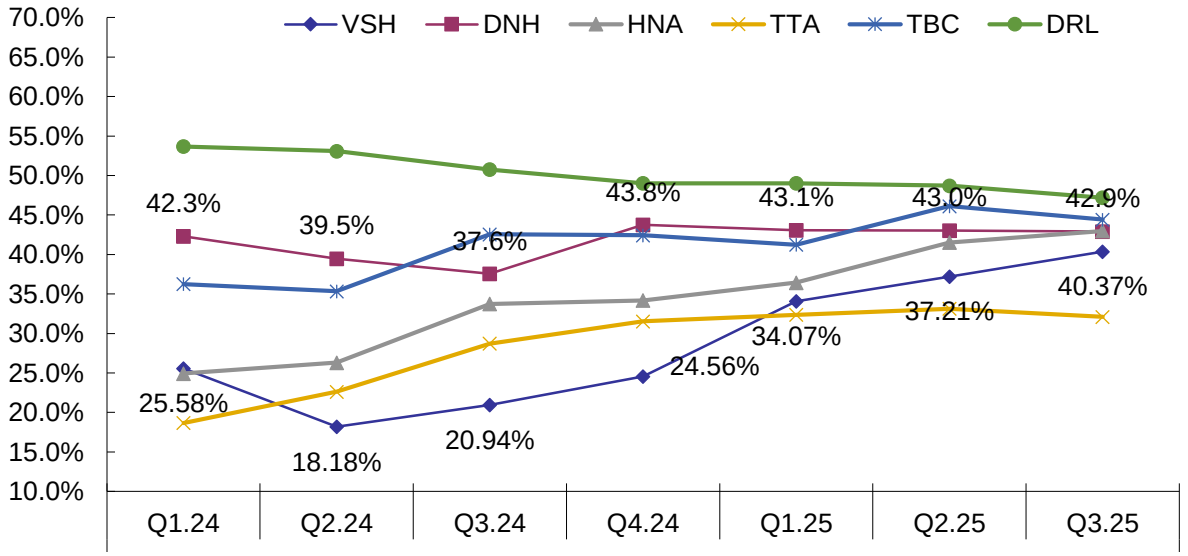
2025 ELECTRICITY STOCK PERFORMANCE – HYDROPOWER





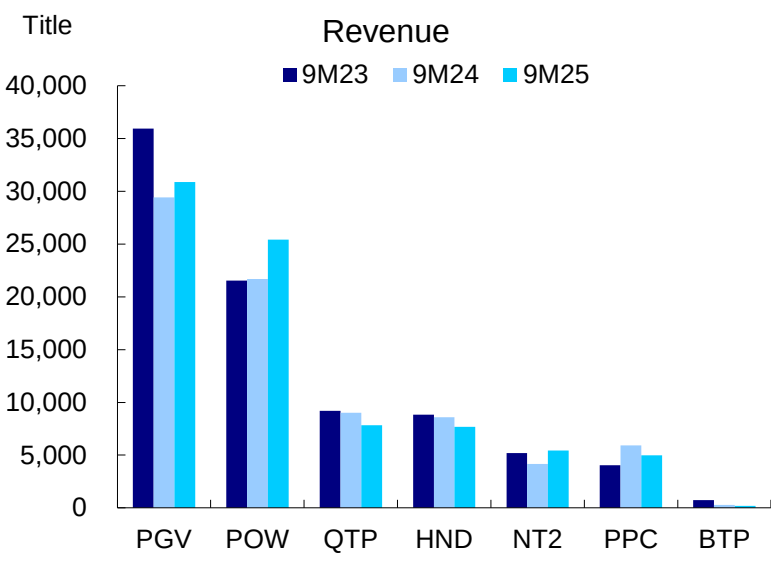


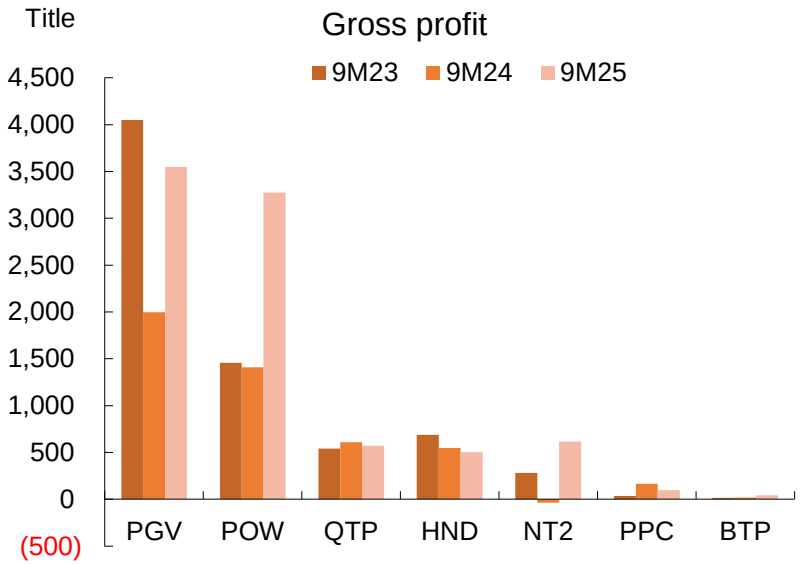


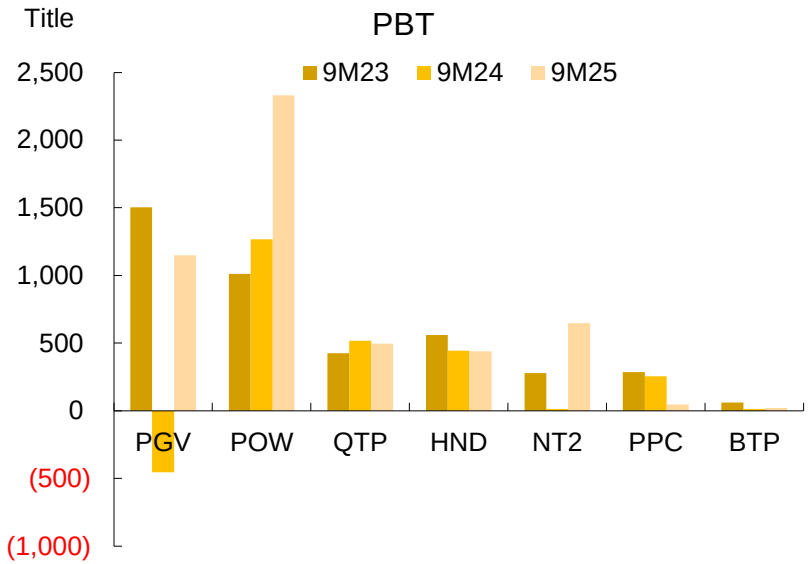


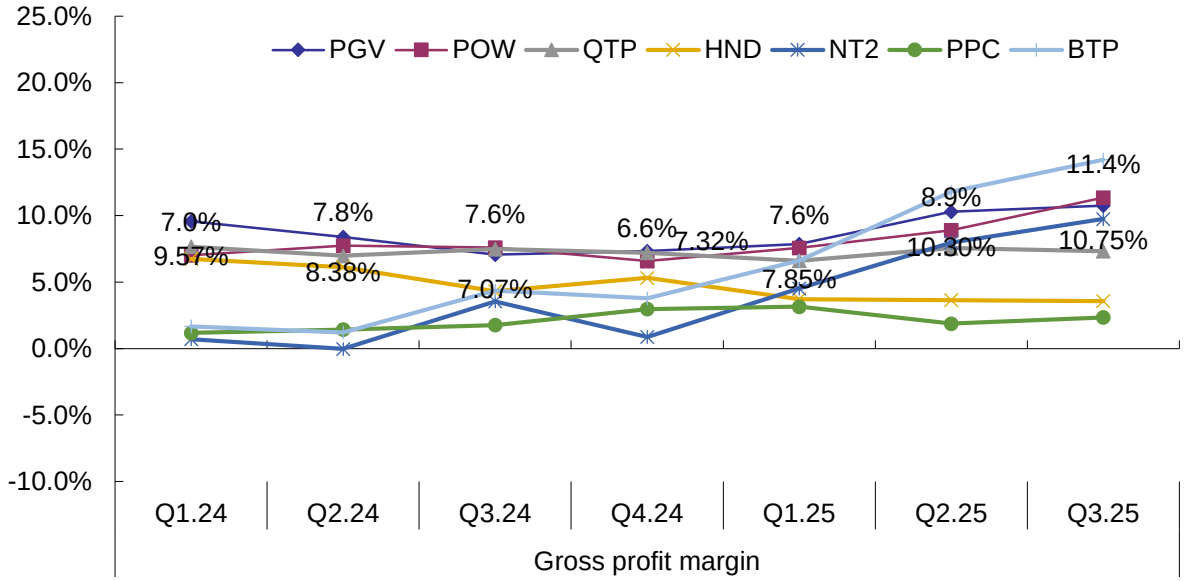
Source: FiinproX, GTJASVN Research

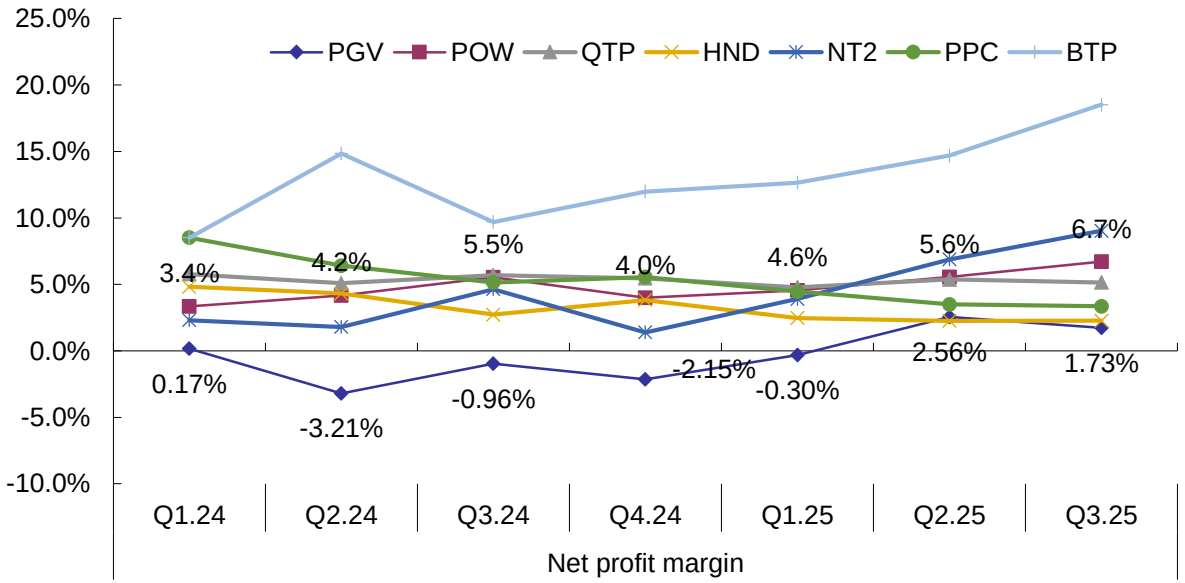
2025 ELECTRICITY STOCK PERFORMANCE – COAL-FIRED POWER







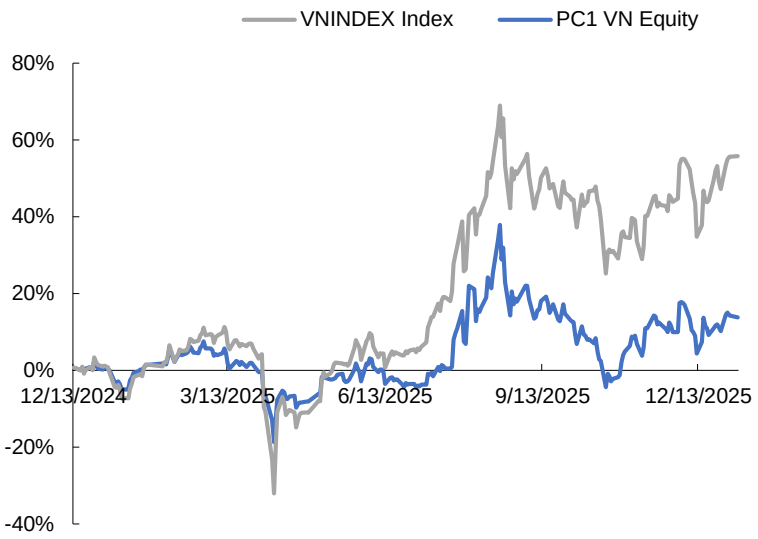




Source: FiinproX, GTJASVN Research

PC1 CORPORATION (HOSE: PC1)

Stock price trends



Stock information (as of 31/12/2025)

Current price (VND)	22,850
Price Volatility 52W	16,043 – 27,217
Average trading Vol 52W	3,453,432
Market Cap (Bil VND)	9,274.12
P/E	16.58
P/B	1.55

PC1 Corporation is a leading company in Vietnam's power construction sector, with extensive experience in national power transmission projects, particularly as EPC general contractor up to 500 kV. After establishing a strong position in power construction consultancy, PC1 has expanded into manufacturing, energy investment, and real estate development.

INVESTMENT HIGHLIGHTS

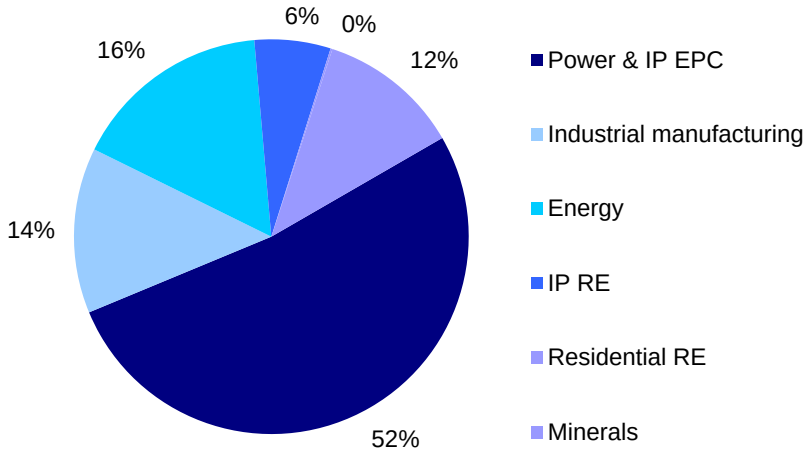
- The power construction segment continues to be positive along with PDP VIII. PC1's EPC backlog continuously reaches new peaks due to urgent demand for capacity and power grid expansion in Vietnam. As of the end of September 2025, the company's backlog reached VND 8,000 billion.
- The energy segment benefits in the short term from the La Niña weather phase. Capacity expansion is expected after two hydropower plants are completed by the end of 2026. The two hydropower plants, Bao Lac A (30 MW) and Thuong Ha (13 MW), are expected to be completed by the end of 2026, bringing PC1's total hydropower capacity to 212 MW (+25% YoY).
- The nickel mine contributes a significant and stable long-term revenue source.
- Long-term prospects come from the expansion of the residential and industrial real estate markets. The Thap Vang project is expected to be a boost in Q4/2025–Q1/2026, while Nomura 2 serves as a medium-term growth driver.

Recommendation: We set the target price for PC1 at VND 25,100/share, corresponding to an upside of 11.3% compared to the closing price on 31/12/2025. **Rating: Accumulate**

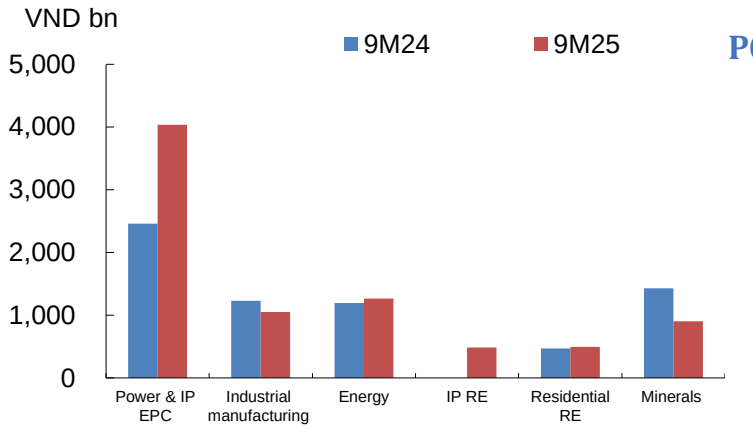
Source: BCTC PC1, GTJASVN Research

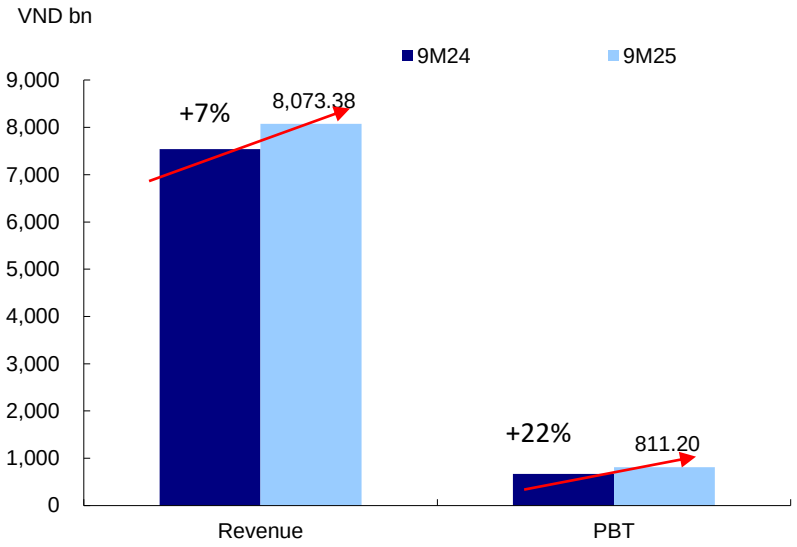
PC1 CORPORATION (HOSE: PC1)

Revenue breakdown 9M25

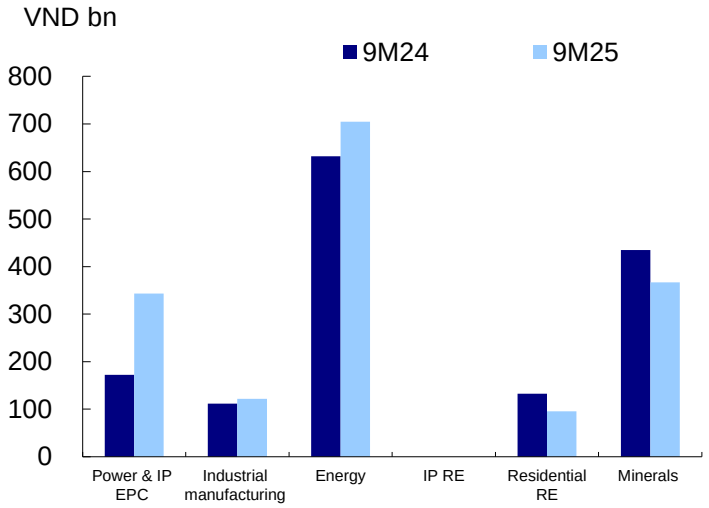


Revenue structure for 9M25





Gross profit structure for 9M25



PC1 industrial & real estate projects under implementation

Industrial park	Ownership (%)	Area (ha)	Lease price (USD/m²)	Project update
Nomura Phase 1	70%	123	120	Fully leased, ~100% occupancy, generating stable cash flow
Nomura Phase 2	99%	123	120	Construction started Dec 2025
Yen Phong IIA	18.6 %	151	170	~20% leased, expected to accelerate occupancy 2025–2027
Yen Len	30%	49	83	Under development and partial operation
Yen Lu	30%	66	115	Major legal procedures completed
Dong Van 5	30%	166	90	Major legal procedures completed

Source: PC1, GTJASVN Research

PC1 CORPORATION (HOSE: PC1)

DETAILED BUSINESS OUTLOOK

1. Power construction segment continues to be positive in line with PDP VIII.

PC1's EPC backlog continuously reaches new peaks due to urgent demand for capacity and grid expansion in Vietnam. As of the end of September 2025, the company's backlog reached VND 8,000 billion.

During 9M2025, PC1 successfully delivered several large-scale projects, including the Con Dao underground fiber optic EPC project, the inauguration of the 500kV Lao Cai – Vinh Yen transmission line, and phase 1 of the Chan May Logistics Center. Meanwhile, the company is implementing key projects such as the Tan Son Nhat – Thuan An underground fiber optic line, the 500kV Thai Binh – Hai Phong transmission line, and the 220kV Thien Uyen – Lao Cai transmission line.

2. Energy segment benefits in the short term from the La Niña weather phase. Capacity expansion is expected after two hydropower plants are completed by the end of 2026.

The two plants, Bao Lac A (30 MW) and Thuong Ha (13 MW), are scheduled for completion by end-2026, bringing PC1's total hydropower capacity to 212 MW (+25% YoY). For the wind power segment, we project stable performance in 2025. Under a cautious scenario where the two new hydropower plants are completed and grid-connected in early 2027, we expect PC1's electricity segment revenue in 2026 to remain flat before accelerating in 2027.

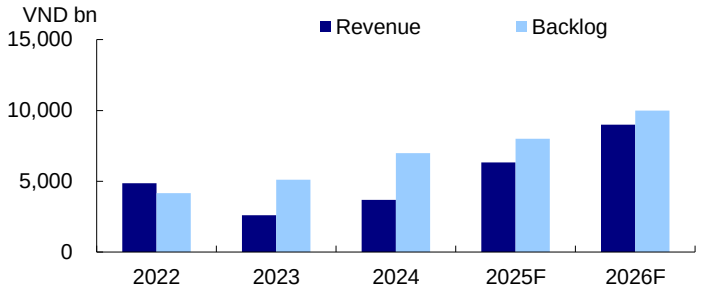
3. Nickel mine provides a significant and stable long-term revenue source

In 9M2025, operational optimization helped PC1 improve the nickel segment's profit margin from 30.4% to 40.6%, making nickel the second-largest contributor to PC1's gross profit, after hydropower.

4. Long-term real estate prospects arise from both residential and industrial property markets.

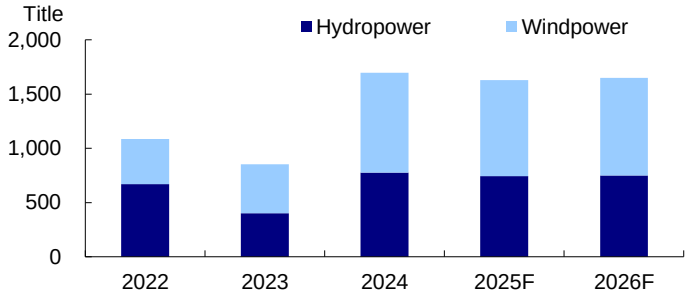
- **Residential real estate:** PC1 expects to deliver and recognize VND 1,500 billion in revenue from the Thap Vang residential area, Gia Lam district, in 2025.
- **Industrial real estate:** On 19 December, the groundbreaking ceremony for the Japan Industrial Park – Hai Phong Phase 2 (NHIZ II / Nomura – Hai Phong Phase 2) took place. The total project investment is approximately VND 2,783 billion with an implementation period not exceeding 24 months, and is expected to generate revenue for the company starting in 2028.

Estimated EPC segment revenue and backlog 2026F

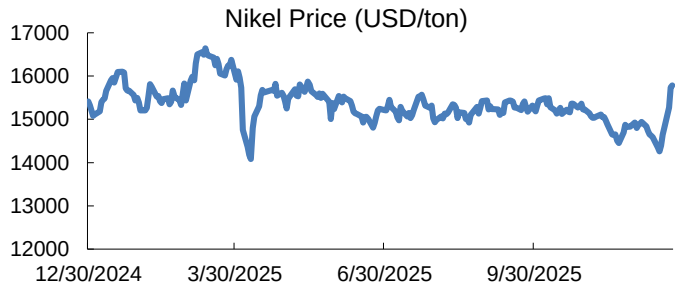


Source: PC1, GTJASVN Research

2026F Power segment revenue forecast



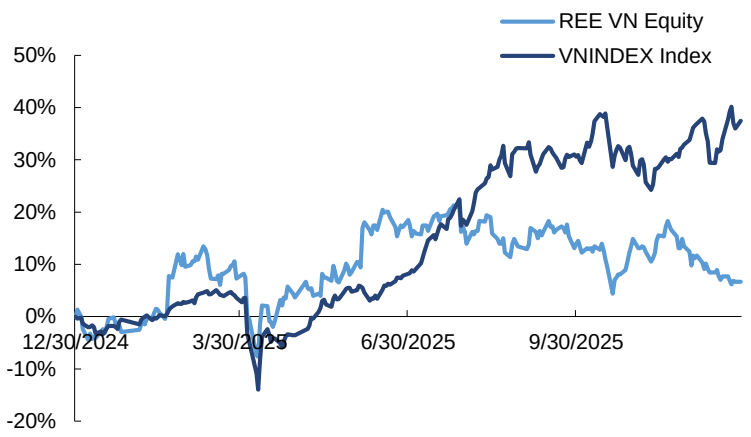
Source: PC1, GTJASVN Research



Source: Bloomberg

REFRIGERATION ELECTRICAL ENGINEERING CORP. (HOSE: REE)

Stock price trends



Stock information (as of 31/12/2025)

Current price (VND)	61,000
Price Volatility 52W	53,043 – 69,700
Average trading Vol 52W	780,531
Market Cap (Bil VND)	33,041
P/E	12.77
P/B	1.63

9M2025 business results: revenue up 18% YoY, PBT up 45% YoY

- The power segment recorded breakthrough growth, led by hydropower thanks to favorable hydrology and high generation output.
- The water segment recorded revenue tripling, mainly thanks to the completion of water treatment projects by the subsidiary TK+.
- The real estate segment increased more than twofold due to land transfers, while office leasing grew slightly with 50% occupancy.
- Meanwhile, the M&E segment recorded revenue decline compared to the same period last year due to the absence of several large-scale projects from last year.

Investment outlook:

- ***We expect that after a good growth year, in 2026, REE's revenue will slightly decrease compared to 2025 due to*** (1) power segment weakening, mainly because the leading factor of the hydropower segment will decrease due to less favorable hydrology than this year and a high revenue base; coal-fired power, wind power, and solar power are expected to remain flat / improve slightly; (2) water segment, in which revenue from water treatment projects remains flat and water supply sales increase slightly; (3) M&E segment revenue improves slightly; (4) real estate segment records slight revenue increase, driven by improved office leasing activity.
- ***Nevertheless, REE remains a company with a solid fundamental base in the industry*** thanks to a balanced revenue structure, combining essential sectors in the economy (power–water), while M&E revenue is reinforced thanks to steady project backlog. In addition, REE's asset quality is also a positive point with net gearing ratio below 20%; dividend rate is consistent, including both cash and stock dividends.

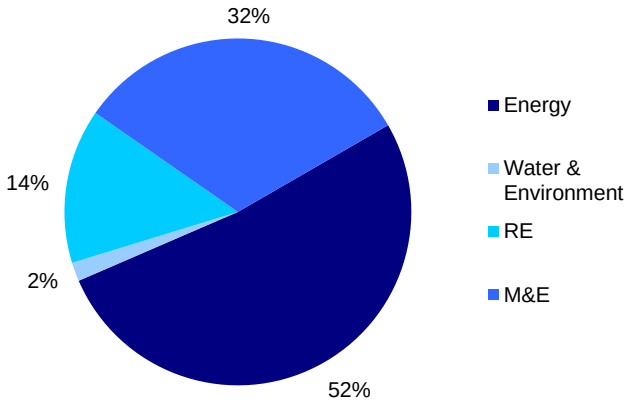
Recommendation: We set a target price for REE at VND 68,100/share, corresponding to upside 11.16% compared to the closing price on 31/12/2025. **Rating: Accumulate**

Key risks: hydrology fluctuations, delays in realizing new wind power projects, and financial costs during the investment expansion period.

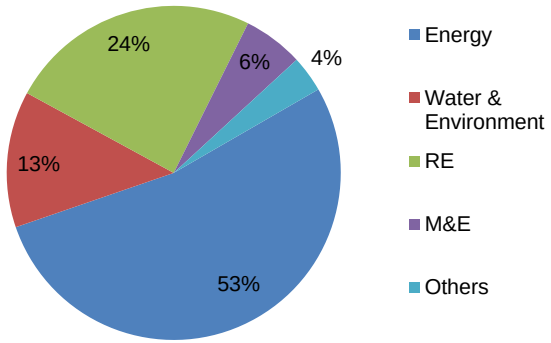
Source: REE, GTJASVN RS

REFRIGERATION ELECTRICAL ENGINEERING CORP. (HOSE: REE)

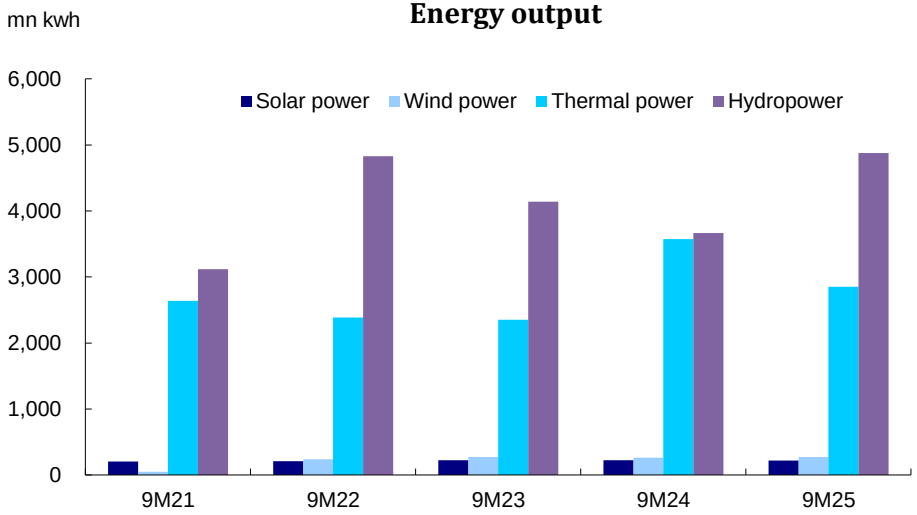
Revenue Structure by segment 9M25



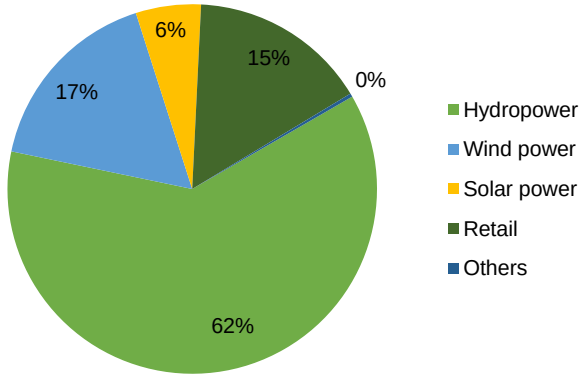
PBT Structure by segment 9M25



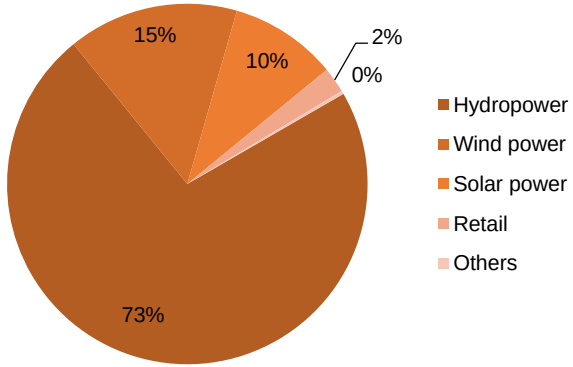
Energy output



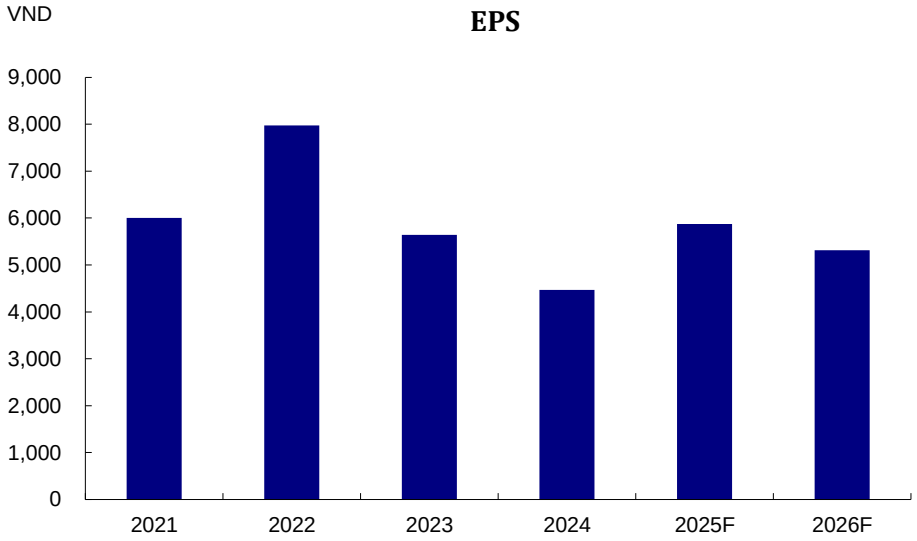
Energy sector- Revenue Structure by segment 9M25



Energy sector - PBT Structure by segment 9M25



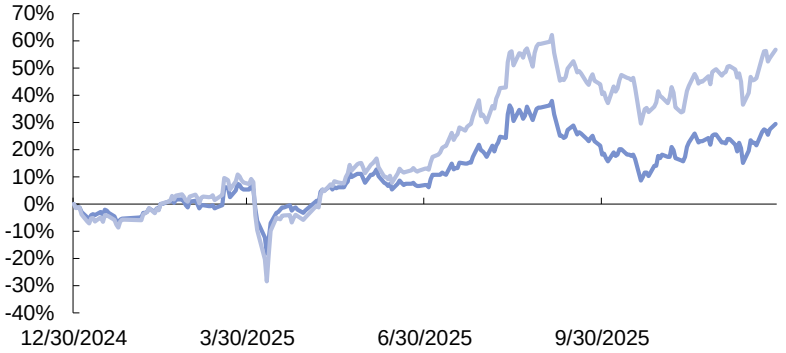
EPS



Source: REE, GTJASVN RS

PETROVIETNAM POWER CORPORATION (HOSE: POW)

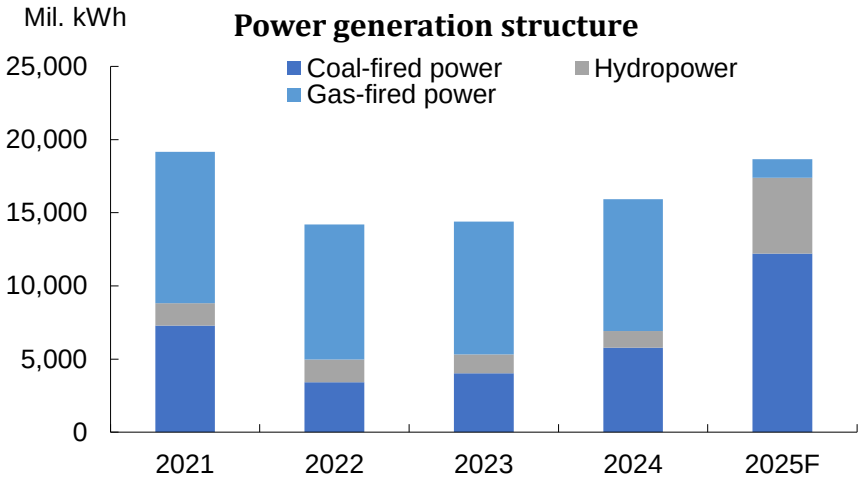
Stock price trends



Stock information (as of 31/12/2025)

Current price (VND)	12,700
Price Volatility 52W	8,207 – 13,844
Average trading Vol 52W	11,444,324
Market Cap (Bil VND)	39,881.21

Power generation structure



2025 Business results: Strong recovery thanks to favorable dispatch conditions

- **Parent net profit 2025F reaches ~VND 2.3–2.5 trillion (+85–106% YoY)**, driven by (i) EVN increasing gas-fired power dispatch amid high Pmax, (ii) favorable weather supporting hydropower, and (iii) improved profit margin at NT2 thanks to high Qc ratio.
- **POW's total system electricity output 2025F ~17.7–18.0 billion kWh (+~10% YoY)**, in which gas and coal power act as pillars; hydropower contributes positively but is weather-cyclic.

2026 outlook: Revenue rises, profit under cost pressure

- **Revenue 2026F is expected to jump to ~VND 41–53 trillion (+22–58% YoY)** thanks to **NT3 & NT4 entering commercial operation**, expected to contribute ~6 billion kWh/year (minimum Qc ~65%). However, **net profit is forecast to slightly decrease YoY** due to the start of depreciation and interest costs from new projects.
- **The 2026 power system context is favorable for POW**: national electricity demand is expected at ~350 billion kWh (+8–9% YoY), while many other LNG power projects face delays → low competition pressure, prioritizing dispatch of existing gas plants.
- **Domestic gas supply is secured until 2026** (Nam Con Son, PM3-CAA), supporting high output at NT1, NT2, Ca Mau 1&2; from 2027, **the LNG electricity price renegotiation mechanism (Cir.54/2025)** is a catalyst to improve profit margins.

Recommendation: We set a **target price for POW at VND 13,300/share**, corresponding to **upside of 4.7%** compared to the closing price on Dec 31, 2025. **Rating: Neutral**

- **Key risks:** progress and terms of NT3&4 PPA, LNG/coal price fluctuations, rising financial costs during initial operation phase.

Source: POW, FiinproX, GTJASVN RS

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