

Power sector: Awaiting for a comprehensive policy framework

- 2024 will be a pivotal year for finalizing important policies, creating a more attractive investment environment toward wind and LNG-to-power.
- In 2024, coal-fired power will be actively mobilized, particularly at plants in the North, while hydropower will recover from low base in the last 3 quarters.
- We chose POW, REE for long-term investment strategies, given their positions as large enterprise, reasonable valuations and contain long-term growth outlook.

2024-25 to mark a turning point for power sector policies

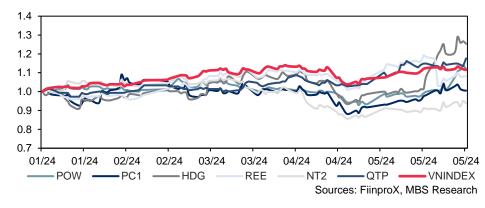
In 2024, we see crucial policies supporting the growth prospects of two pivotal power sources - LNG and wind power are being rapidly pushed, including pricing framework for LNG and the direct power purchase agreement (DPPA) mechanism. Besides, we expect another incomplete policy, the pricing framework for RE power will be promptly enacted, bolstered the long-term outlook for this sector. Alongside this, the new retail pricing mechanism will enable EVN to potentially increase electricity prices by 5-10% in 2024. This move is intended to support its financial stability while enhancing payment flow for power plants. We see power industry's outlook is getting more conducive after extended period of policy entanglement, thus, outstanding companies in the industry may start implementing projects from 2024-25 including POW, REE, HDG, GEX.

Robust 2024 power consumption growth to support coal and hydropower mobilization prospects

In 2024, we expect power consumption growth to reach 9.8% yoy, aligning with high-load scenario of Power Development Plan VIII (PDP8). Demand recovery in manufacturing sector, coupled with the surge in residential consumption during peak summer months to be the primary drivers that will support high power consumption growth this year. Regarding mobilization outlook by power sources, we expect coal-fired power will be the most beneficiary in 2024. This is attributed to the sharp output surge in the North as well as reduction in input cost, helping coal power more competitively priced comparing to gas-fired power. Hence, QTP is poised to ride on this trend. For hydropower, being intensively store in 1Q24 and the El Nino phase to officially end will be the main catalyst for higher mobilization from 2Q24. Therefore, we see hydropower companies such as REE, PC1, HDG to benefit from this trend.

We chose POW, REE based on following rationale: 1) Strong market positions and healthy financial health; 2) Possessing strong potential to develop large-scale project in LNG-to-power and wind power sectors; 3) Positive 2024-25 net profit growth POW (10.6%/38.6% yoy) và REE (5.3%/10.6% yoy).

Figure 1: YTD price performances of power stocks under MBS coverage



Manager

Dung Nguyen Tien

Dung1.NguyenTien@mbs.com.vn

Analyst

Tung Nguyen

Tung.NguyenHaDuc@mbs.com.vn



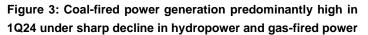
Power sector recap 4M24

Figure 2: 4M24 power consumption rebounded from last year's humble growth rate

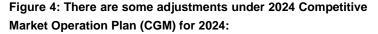
In the first 4 months of 2024, national power consumption increased by 13% yoy from a low base 2023, supported by:

- Significant rise in residential electricity demand amid early heat waves, particularly surge in March and April.
- Strong recovery in industrial demand, as indicated by positive growth in IIP with the resurgence in core industrial sector such as cement, steel and export sectors.

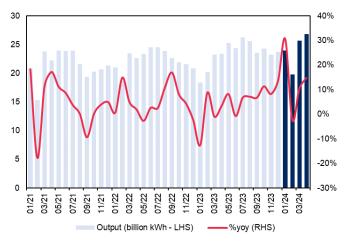
Notably, the growth rate exceeds Ministry of Industry and Trade's early-year forecast of 9% yoy, adding pressure on electricity supply during peak demand period in upcoming 2Q-3Q/24.



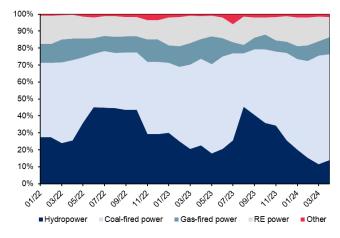
In the 1Q24, coal-fired power output accounted for a substantial proportion, increasing by 13%pts yoy to constitute 59% of total system output due to 1) Coal-fired power were prioritized by A0 due to demand surge in the North and coal price drop, bolstered its competitiveness; 2) Hydropower output slumped, comprising only 15% of total generation (-9%pts yoy) due to ongoing El Nino phase and the necessity to conserve water for peak demand period; 3) Gas-fired power markedly dropped under severe gas supplies shortage, its output only accounted for merely 9% total output (narrowing 3%pts yoy).



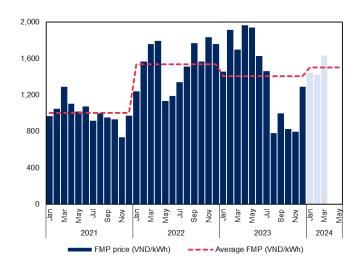
- 1) System marginal price (SMP) is set at 1,510VND/kWh, a decrease of 12% yoy. This reduction diminishes the pricing latitude for high-cost thermal power such as gas-fired power plan.
- 2) Contract output (Qc) rate for hydropower increase from 90% in 2023 to 98% in 2024, equating to lower output on the competitive market (Qm) of only 2%. Thus, we see hydropower average selling price (ASP) to hinder due to the reduction for higher-priced portion bidding in the CGM.
- 3) Qc proportion for thermal power plants is 70%, corresponding to higher Qm of 30%. With new SMP set at 1,510VND/kWh, and average capacity cost (CAN) tariff at 330 VND/kWh, coal-fired power has higher potential to proactively bid in the market to optimize profit margins.



Sources: EVN, MBS Research



Sources: EVN, MBS Research



Sources: GENCO3, MBS Research

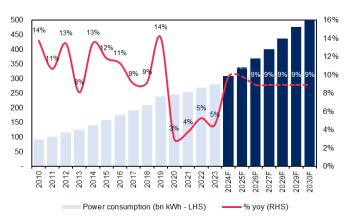


Power sector exhibits positive transformations

Power consumption to reach robust growth from 2024

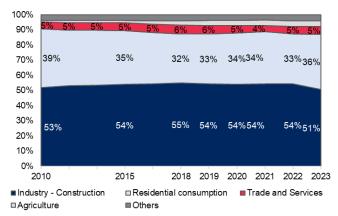
We anticipate that power demand could rebound by 9.8% yoy in 2024, aligning with the high scenario outlined in the PDP8, and exceeding the MOIT early-year projection of 9% yoy. We see the recovery is supported by higher-than-expected power output growth in the initial months of the year, averaging 13% yoy, with the trend expected to continue during the peak summer months. For 2025-30 period, we forecast power demand to grow at a compound annual growth rate (CAGR) of 9.3%, closely tracking the Vietnam solid economic growth after a very challenging period 2020-23. We see the robust growth will be driven by the resurgence in industrial activities as well as the increasing residential power consumption during the hot months.

Figure 5: Power consumption will grow at 9.3% CAGR over 2024-30 period, far exceed low base level in 2021-23



Sources: PDP8. MBS Research

Figure 6: Power demand for industrial sector will be the primary driver, while residential demand needs to be secured in peak months



Sources: EVN, MBS Research

New retail electricity pricing mechanism to support EVN's financial sustainability

In 2024, alongside a downward trend in input costs, the new retail power pricing mechanism will significantly support EVN's operations. With the role of principal distributor, its financial health greatly impacts multiple channels in power sector value chain, influencing payment cash flow for power plants and investment in grid infrastructure and power sources. Thus, the new mechanism introduces several improvements:

- Minimum price adjustment cycle reduced from 6 months to 3 months, ensuring short-term input cost fluctuation are promptly reflected.
- Market transaction operational costs and industry management cost are now included in EVN production costs, providing a more comprehensive reflection of incurred expenses.
- EVN's obligation to reduce electricity prices accordingly if calculated input price decreases more than 1% compared to the current retail price. In contrast, EVN is authorized to increase retail prices if the calculated production cost rises by 3-5%. For an increases between 5-10%, they can adjust prices after receiving approval from MOIT. For more than 10% increases of those affecting the macroeconomic situation,



consultation with relevant ministries and approval from the Prime Minister is required.

We see the new mechanism lays the foundation for upcoming price increases once the regulation takes effect on May 15, 2024. Thus, we expect a 5%-10% retail electricity prices rise this year.

Figure 7: We see the new mechanism to signal a new price increase this year, averaging around 5-10% per our view

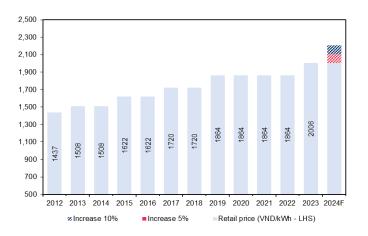
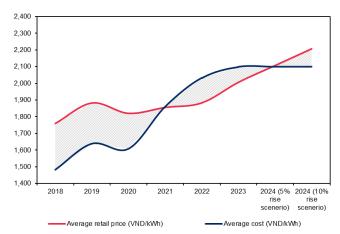


Figure 8: Under unchanged production cost assumption, a price increase by 5% help EVN gains ~8VND/kWh in gross profit, while a 10% raise bring the number to ~109VND/kWh from gross loss 2023



Sources: EVN. MBS Research

Sources: EVN. MBS Research

2024-25 to be pivotal period for promulgating crucial sector policies

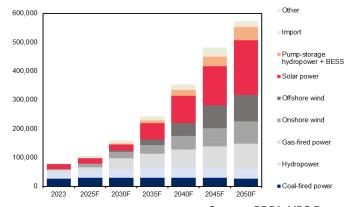
According to the implementation of PDP8 approved in April 2024, the development orientation of Vietnam power industry is basically maintained from the last year PDP8, focusing on wind power and gas-fired power development in 2023-30 period, while researching other flexible power sources such as pumped storage hydropower and biomass power. Particularly, by 2025, several policies and legal projects are in the rush to complete, of which, some of them that we believe need to be carried out soon to lays a basis for implementing new power sources include 1) Price framework for new power sources (RE power, LNG-to-power, offshore wind power); 2) Direct power purchase mechanism (DPPA); 3) Electricity law (Amended). Currently, most of the above have been drafted and are in completion process, thus, we see 2024-25 will be a crucial period in issuing key policies when Vietnam only has 6.5 years left to complete heavy task assigned in the PDP8.

Figure 9: List of priority projects/policies for Vietnam power sector in 2023-25 period

| Policies/projects | Timeline | Progress |
|------------------------------|----------|-------------------------------------------|
| | | |
| Building price framework for | | - Propose a price framework of minimum |
| importing power from Laos | 2023-25 | 6.95UScent/kWh from 2025 |
| Price framework for power | | - Issued LNG price framework in 2Q24 |
| sources (LNG, RE, offshore) | 2023-25 | - RE price framework not yet finalized. |
| Direct power purchase | | - Submitted to Government on May 2024 |
| agreement (DPPA) | 2023-25 | - Expected issuance at 3Q24. |
| Rooftop development | | - Finalizing and submitting to government |
| mechansism | 2023-25 | before June 15, 2024 |
| Electricity law (amended) | 2023-25 | - Collecting comments on Draft 2 |
| Law on Energy saving and | | |
| efficiency (amended) | 2023-25 | |
| Mechanism for carbon credit | | |
| market | 2023-25 | |

Sources: PDP8, MBS Research

Figure 10: Power capacity development workload is heavy over 2024-30 period, targeting wind power and gas-fired power (Unit: MW)



Sources: PDP8, MBS Research



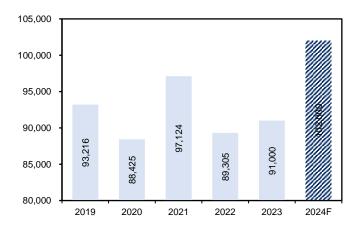
2024-25 sector outlook by power sources

Power infrastructure plays an essential role in the long term

We expect power construction activities, including grid and power plant contractor to enjoy brighter outlook in 2024-25 when recovery from low base 2022-23. According to EVN, the construction investment plan for 2024 reach ~VND102,000bn, up 12% yoy with the 500kV line 3 Quang Trach – Pho Noi being the focus. Thus, PC1 and TV2 are some prominent listed companies benefiting from this trend.

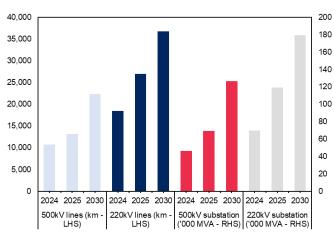
In the longer term, power transmission development is a crucial task to support National power system stand firm against high penetration of RE power sources, alongside with the urgent need for increasing power supply from South to North. On the other hand, power plant construction is the fulcrum, ensuring economic growth to the fullest. Moreover, with the government's determination to focus on developing RE power to achieve net zero commitment in COP26, we see high workload as well as capital requirement for power construction from now to 2030. Therefore, this will basically secure a substantial outlook for power construction companies, especially the one with capacity to undertake large-scale and high technical projects.

Figure 11: EVN's 2024 main focus includes construction investment, with expected total capital of about VND102,000bn (+12% yoy)



Sources: EVN, MBS Research

Figure 12: Workload for transmission project development remain high in 2024-50 period with estimated value of ~US\$1.6bn/year



Sources: PDP8, MBS Research

RE power: Urgently complete important policies

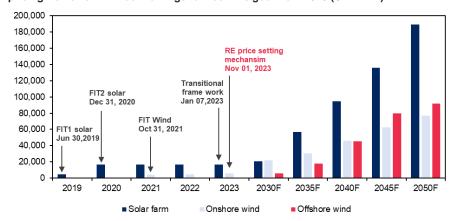
In 2024-25, RE power output growth is expected to remain stable due to improved capacity curtailment risk, supported by timely power system upgraded to basically absorb high proportion of RE power capacity.

Regarding policy outlook, after more than one year of issuing price framework for transitional projects, currently almost all projects have submitted legal documents for further price negotiation, of which, by the end of 2023, 21 plants with total capacity of 1,201MW have completed COD procedures and provided power onto the grid (some prominent names include BCG, GEG, Trung Nam). However, these projects are still being mobilized at provisional prices (half the transitional ceiling price), and at the moment, the official price negotiation has not made any significant progress, causing pressure on financial efficiency of the projects.



For future RE projects, in order to facilitate investment and give investors a solid foundation on which to launch new power plants, the government is working quickly to finalize several key policies, such as the direct power purchase agreement (DPPA) mechanism and the price framework for renewable energy. At the moment, these policies are still in the draft stage with unclear information on the issuance process. These, in our opinion, are in need to implement with the aim to meet the development target for RE power outlined in the PDP8 over 2024-30 period.

Figure 13: Wind power development grow at 30% CAGR over 2023-30 period. Thus, clear pricing framework will be the hinge to meet this goal from 2025 (Unit: MW)

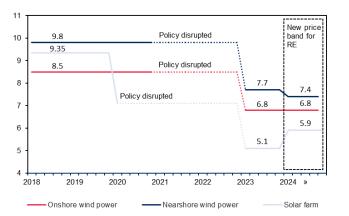


Sources: PDP8, MBS Research

RE power pricing framework: Outlook unclear after the Circular 19 issuance

After the Circular 19 – Regulations on the method of developing RE power price framework was issued in Nov 23, there has been no further information on the official price band for RE power up to now, thus, hindering the implementation of new projects. In terms of estimation, we stick to our initial computations, and suggest a ceiling price for nearshore and onshore wind power to be equivalent to the transitional price band of 7.4UScent/kWh and 6.8UScent/kWh, respectively. On the other hand, we estimate a higher price for solar farm project of 5.9UScent/kWh (+16% from transitional price) in order to maintain financial viability. However, we note that our calculation could shift based on crucial presumption such as investment cost, operation hours and plant capacity.

Figure 14: Wind power prices remain flat compared to transitional prices, however, solar farm prices should be higher in order to be economically viable (Unit: UScent/kWh)



Sources: MOIT, EVN, MBS Research

Figure 15: We calculated the price band for RE according to the Circular 19 guidance, based on the bellowed assumptions:

| | Unit | Solar farm | Onshore wind | Nearshore wind |
|------------------------------|-----------|------------|--------------|-------------------|
| Capacity** | MW | 50MW | 50MW | 50MW |
| Operation hour** | hour/year | 1,900 | 3,100 | 3,500 |
| Investment cost** | VNDbn | 18 | 34 | 41 |
| Economic life* | year | 20 | 20 | 20 |
| NPAT/Equity* | % | 12% | 12% | 12% |
| Regulated tax rates* | % | 20% | 20% | 20% |
| Local loan interest rate** | % | 9% | 9% | 9% |
| Foreign loan interest rate** | % | 7% | 7% | 7% |
| | | | | |
| Average fixed price | VND/kWh | 1,295 | 1,500 | 1,602 |
| Fixed O&M price | VND/kWh | 123 | 143 | 176 |
| Estimated ceiling price | VND/kWh | 1,419 | 1,642 | 1,778 |

^(*) Calculated parameters follow the Circular 19

Sources: Circular 19, MBS Research

^(**) MBS Research's assumptions



Figure 16: We conduct a sensitivity analysis of investment cost and interest rate on onshore wind power ASP (Fig.16) and nearshore wind power ASP (Fig.17)...

Interest rate (%) 6.0% 6.5% 7.0% 8.0% 8.5% 9.0% 7.4% Investment (VNDbn/MW) 28 1.315 1.329 1.342 1.353 1.369 1.382 1.395 30 1,409 1,423 1,449 1,466 1,481 1,438 1,495 32 1,503 1,518 1,534 1,546 1,564 1,595 34 1,597 1,613 1,629 1,642 1,662 1,695 36 1,691 1,708 1,725 1,739 1,760 1,777 1,794 38 1,785 1,803 1,821 1,836 1,857 1,879

Sources: MBS Research

Figure 17: ... Accordingly, assuming investment cost decrease by VND1.0bn/MW and interest rate decrease by 0.5%, the feasible price for wind power will decrease by 6-7% per our estimation

| | | | | Int | erest rate | (%) | | |
|-----------------------|----|-------|-------|-------|------------|-------|-------|-------|
| <u>></u> | | 6.0% | 6.5% | 7.0% | 7.4% | 8.0% | 8.5% | 9.0% |
| ⋛ | 35 | 1,476 | 1,491 | 1,506 | 1,517 | 1,535 | 1,550 | 1,565 |
| ď | 37 | 1,561 | 1,576 | 1,592 | 1,604 | 1,623 | 1,639 | 1,654 |
| Σ | 39 | 1,645 | 1,661 | 1,678 | 1,691 | 1,711 | 1,727 | 1,744 |
| Investment (VNDbn/MW) | 41 | 1,729 | 1,746 | 1,764 | 1,778 | 1,798 | 1,816 | 1,833 |
| me | 43 | 1,814 | 1,832 | 1,850 | 1,864 | 1,886 | 1,904 | 1,923 |
| vest | 45 | 1,898 | 1,917 | 1,936 | 1,951 | 1,974 | 1,993 | 2,012 |
| ≘ | 47 | 1,982 | 2,002 | 2,022 | 2,038 | 2,062 | 2,082 | 2,102 |

Sources: MBS Research

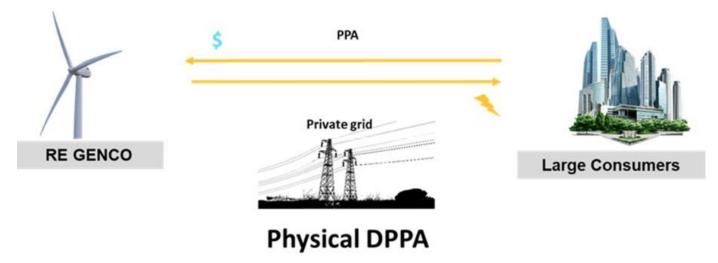
DPPA mechanism: Promoting RE power prospects

In 2023-25 period, DPPA for RE power is a key policy that is being pushed to issue. We summarize two main options under the DPPA draft including:

Option 1: Directly purchase power via private lines:

The parties sign a DPPA contract to exchange electricity through a direct transmission line without going through national grid. In this option, electricity supplier suggested are RE power plants (including wind power, solar farm, rooftop solar system, waste-to-energy and biomass power), with no capacity limit. Customers and generators will negotiate on contracted output, selling price usually based on the retail electricity price.

Figure 18: Diagram of the option 1: Private-wire DPPA



Sources: PECC3, MBS Research

Option 2: Purchasing power through national grid

Under this option, the draft clearly stipulates that power generation units are RE power plants (solar power, wind power) with design capacity at minimum 10MW. Large customers are units with an average consumption of 500 thousand kWh/month. In which, buyer and seller will sign a DPPA contract to exchange electricity through national grid (EVN). Therefore, three parties will sign these following contracts:



- Power plant joins the competitive wholesale market and execute payment for EVN through the full market price (FMP) in CGM, determined by SMP price + CAN price, issued annually by the MOIT.
- Large customer signs a power purchase contract with EVN, also base on the FMP, but plus DPPA service costs (including power transmission fee + distribution fee + Dispatch fee + other ancillary costs).
- 3) Power plant and large customer sign a Contract for Difference (CfD), committing specific terms regarding power output and contract selling price as mutually agreed. Two parties will settle the payment based on the Contract for Difference principle: for each settlement period (monthly/quarterly, depending on contract agreement) both parties will pay each other the difference between the contract price (Pc) and the reference price (FMP), For example, if FMP lower than Pc, meaning power plant suffered loss, thus, customer will compensate the price gap in the settlement period to ensure seller expected profit as follow:

$$Rc = (Pc - FMP) \times Qc$$

In which

Rc: Contract revenue for the transaction period

Qc: committed electricity volume under the forward contract

Pc: Contract price agreed upon two parties

FMP: Full market price in the CGM = Reference price

Virtual DPPA - Model 2 EVNPECC3 Model based on Report No. 158/BC-BCT dated 25 Sep 2023, subject to change Participating consumers are considered as market buyers, Forward contract (Contract for Difference - CfD) with real-time access to spot market price data Strike price, output, and RECs RE GENCO Large Consumers real-time access to spot market price data Issuing retail invoice to consumers based on spot market prices for the settlement period Wholesale electricity market Collecting service fees (DPPA Power Corporations charges) levied on consumers

Figure 19: Diagram of option 2: Purchasing power through national grid

Sources: PECC3, MBS Research

The DPP ensure the "green" attribute of electricity for customers, supporting export and other commercial activities. For power plants, DPPA contracts create a more favorable business environment, enhancing competitiveness and motivating investors to proactively seek for customers. From a contractual



perspective, DPPA guarantees power output volume and price commitment while mitigates market price fluctuation risks via the CfD contract principle. Currently, the mechanism is still in draft stage, refining some of the aspect, and expected to be issued by 3Q24. In long term, DPPA will serve as a cornerstone for Vietnam's electricity sector to progress towards the Vietnam competitive retail electricity market (VREM). We believe RE power sector will benefit thanks to its "clean" nature and the robust development of carbon credit market.

There are still risks from violated RE project

Figure 20: List of projects of listed companies named in the inspection document at Dec 2023

| Power plant | Туре | Investors | Status | Proposed for handling violations |
|----------------------|------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| | | | | |
| Vung Ang 1 | Coal-fired power | POW | - Not yet recalculated power price after auditing project investment capital | - POW is negotiating with EVN to adjust the contract price |
| Nhon Trach 2 | Gas-fired power | NT2, POW | EPC contractor constructs before final design Wrongly assesses sand price for leveling Approves investment decision before environmental impact assessment. | NA |
| Song Bung 4A | Hydropower | GEX | Initial PPA price reached VND1,271/kWh, exceeding 2015 price ceiling of VND1,060/kWh. GEX signed a new PPA contract at adjusted price of VND1,110/kWh in 2022 following the price band. | - Implement economic measures based on the profit exceeding the price band. |
| Thac Mo solar | Solar farm | TMP | Listed among 14 projects benefiting from FIT at 7.09UScents/kWh contrary to Resolution. | - Reassess the eligibility for FIT price |
| BCG Long An 1 | Solar farm | BCG | Wrongly approval of land use exceeds by 0.6ha, land lease exceeds 1.29ha. COD before acceptance document. | - Reassess the eligibility for FIT price - Reclaiming excess land area (3.7% total area). |
| BCG Long An 2 | Solar farm | BCG | Wrongly approval of land use for 4.2ha. Construction on a part of 124ha of production forest land COD before acceptance document. | - Reassess the eligibility for FIT price - Reclaim excess land area (3.3% total area) |
| Duc Hue | Solar farm | GEG | - Wrongly approve land lease for 9.67ha | Reassess the eligibility for FIT priceReclaim excess land area |
| Hong Phong 4 | Solar farm | HDG | - Construction on surface land of national mineral reserve area | Transfer case file to Ministry of Public Security for investigation Reclaim excess land area |
| SP Infra 1 | Solar farm | HDG | - Listed among 14 projects benefiting from FIT at 9.35UScents/kWh contrary to Resolution | - Implement economic measures for solar projects that improperly benefited from FIT mechansim |
| Europlast Long An | Solar farm | ASM | - Start construction before land lease approval from Provncial People's Committee | - Review and handle according to regulations |
| Cu Jut | Solar farm | CHP | Violations in land use and land lease Start construction before land lease approval COD before acceptance document | - Review and handle according to regulations |
| Phu Lac 2 | Wind power | REE (50%) | - Construction on surface land of national mineral reserve area | Transfer case file to Ministry of Public Security for investigation Reclaim excess land area |

Regarding information on projects with violations, especially those is transferred to the Ministry of Public Security for further investigation, there have been no clear decisions made about the handling of these projects. We believe there remain risks that could pressure the sector's outlook. However, there have been more positive signals recently, such as the consideration for legally compliant RE projects located on national mineral lands in distinctive regions such as Dak Nong (bauxite minerals) and Binh Thuan (titanium minerals) to continue operations throughout their lifecycle. We view this as a positive sign for power plants in this case such as Hong Phong 4 solar farm (HDG). From our perspective, we see that the risks related to handling violations are trivial for investors, as the main responsibility outlined in the document mainly targets governmental ministries and departments. However, we cannot rule out the possibility of economic measure being taken against the offending projects.

Sources: MBS Research



Overall, the sector's outlook remains positive with the acceleration of policies and decreasing investment costs coupled with improved efficiency

According to IRENA latest report, the levelized cost of energy (LCOE) for RE power, particularly wind and solar power has significantly decreased over 2010-22 period. This decline is supported by two main factors, including the reduction in installed cost and increased plant capacity factor due to technological advancements. We see the decreasing trend in investment cost, particularly equipment prices (usually account for 70-75% of total investment) will support the implementation prospects for future with power plants. Therefore, we see companies with capacity and experience to implement large-scale projects, possessing efficient power generation plants with optimal LCOE, as well as the ability to raise low-cost capital will benefit in the upcoming period. These companies include HDG, REE, GEG, PC1.

Figure 21: According to IRENA's latest report, equipment installation costs are on a sharp decline over 2010-22 (Unit: million US\$/MW)

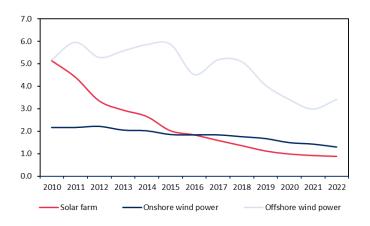
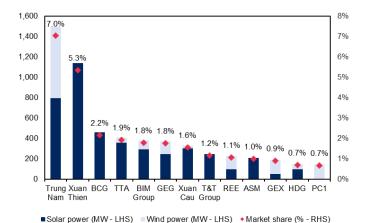


Figure 22: Enterprises with experience in implementing RE projects such as REE, GEX, GEG, and strong ability to mobilize low-cost capital including PC1, HDG will stay ahead in the coming period



Sources: IRENA, MBS Research

Sources: MBS Research

Gas-fired power: LNG-to-power plays a vital role in medium to long term

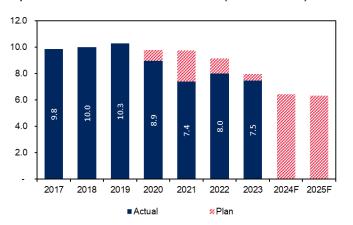
Over 2024-25 period, we believe gas-fired power sector still faces several challenges:

- In 4M24, gas-fired power output decreased by 15% yoy, despite already touched low levels in 2023. We see the decline affected by domestic gas shortage, especially for plants consuming input from Southeast gas fields as well as the anchored high gas prices, hindering the competitiveness of this energy source. Therefore, we expect gas-fired power to continue facing difficulties in 2024.
- Looking ahead to 2025, we see the decreasing trend of domestic gas supply will continue, given that new gas fields such as White Lion and Nam Du U Minh to operate earliest by late 2026-27, with expected higher prices compared to existing gas fields. We see the supplementing with LNG will be a feasible solution to improve input sources for domestic power plants. In term of mobilization outlook, we see the higher-than-expect power consumption growth and urgent efforts to enhance South-to-North power transmission will soon help absorbing excess capacity in the South. Therefore, gas-fired power may benefit from this trend in the following years.



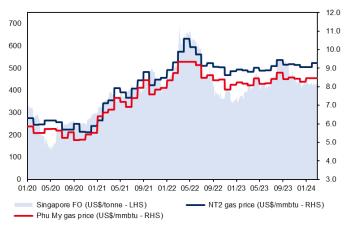
Notably, in May 2024, the MOIT issued official pricing framework for LNG power, with ceiling price of 2,590.85USD/kWh, based on gas price of ~12.9US\$/mmbtu (excluding gas reprocessing costs and VAT). We see the new price although stay lower than our estimation, it is economically viable enough for investors to expedite PPA negotiations with EVN this year.

Figure 23: Domestic gas supply has been declining over years, failing to meet the annual plan since 2020. We forecast that gas supply output in 2024-25 will continue to decrease (Unit: billion m3)



Sources: GAS, MBS Research

Figure 24: Gas prices retreated from 2022 peak, but still anchored at high level relative to historical averages. We expect the high base to persist in 2024-25 as new gas fields become increasingly expensive



Sources: Bloomberg, GENCO3, NT2, MBS Research

| Figure 25: List | of outstanding gas fi | ield under develo | pment, addition | nal gas flo | ows to be | possible | at soones | t late 202 | 6 onward | |
|-----------------|-----------------------|-------------------|-----------------|-------------|-----------|----------|-----------|------------|----------|--|
| Project | Location | Capex | Reserves | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | |

| Project | Location | Capex | Reserves | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|-----------------------|--------------------------|---------|------------------|------|------------|----------------------------------|-----------------------|-----------------------|------|------|-----------------------|
| | | (US\$m) | (m3 gas) | | | | | | | | |
| Block B | Malay - Tho Chu basin | 6,700 | 107bn m3 gas | | FID | | | First gas expectation | | | |
| White Lion - Phase 2b | Cuu Long basin | 1,300 | 20bn m3 gas | | FID . | Sep 2025: Contract expires | First gas expectation | | | | |
| Nam Du - U Minh | Malay - Tho Chu basin | n/a | 171.3bn m3 gas | | DP setting | ε | First gas expectation | | | | |
| Blue Whale | Song Hong basin | 4,600 | 150bn m3 gas | F | DP setting | | | | | (| First gas expectation |
| Bao Vang - Bao Den | Song Hong basin | 1,321 | 58bn m3 gas | | Exploring | | | | | | |
| Ken Bau | Song Hong basin | n/a | 200-250bn m3 gas | | Exploring | | | | | | |

Sources: MBS Research

In medium to long term, gas-fired power is one of the main development thrusts according to the PDP8 over 2023-35 period:

- LNG-to-power is an important baseload sources under a system containing high portion of RE capacity. We expect the role of LNG-topower becomes increasingly crucial amid the sharp decline in domestic gas supply. At the moment, Vietnam total LNG imported reached around 270,000 tons with price fluctuate in the range of US\$12-14/mmbtu, primarily served Nhon Trach 3&4 commissioning and acted as backup sources for Phu My 3 thermal power plant during peak load period of 2Q-3Q24.
- In term of project implementation outlook, the new pricing framework for LNG power will positively support the PPA's negotiation progress for some of the first under construction LNG power plants, Nhon Trach 3&4 and LNG Hiep Phuoc 1. Furthermore, we see clear incentives to push



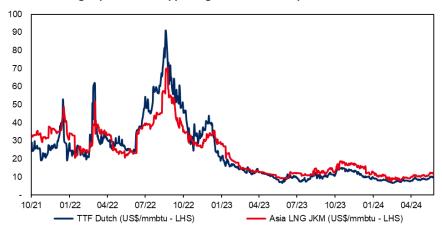
these projects into operation on time, stemming from lower capacity development rate than demand growth rate. Especially for Nhon Trach 3&4, the plant is listed as key project under the national power development program, we expect the plant to receive more dedicated support in both contract negotiation and construction. Over 2024-35 period, we highly appreciate companies involved in LNG gas-fired power value chain, including infrastructure investment firms like GAS, as well as power plant developers such as POW and PGV.

Figure 26: List of outstanding LNG-to-power and domestic gas-fired power plants in 2024-35 period

| | Capacity | | | |
|--------------------------|----------|----------|-------------------------------------------|-----------------------------------------------|
| Power plant | (MW) | Timeline | Investor | Progress |
| LNG-to-power | | | | |
| Nhon Trach 3&4 | 1,600 | 2024-25 | PVPower | Under construction |
| LNG Hiep Phuoc 1 | 1,200 | 2025 | Hai Linh Company Limited | Under construction |
| LNG Bac Lieu | 2,400 | 2027-29 | Delta Offshore Energy | Building FS |
| LNG Quang Ninh 1 | 1,500 | 2028-29 | PVPower - Colavi - Tokyo Gas - Marubeni | Building FS |
| LNG Thai Binh | 1,500 | 2029 | | Choosing investors |
| LNG Nghi Son | 1,500 | 2029-30 | | Choosing investors |
| LNG Quynh Lap | 1,500 | 2029-30 | | |
| LNG Quang Trach | 1,500 | 2029-30 | EVN | |
| LNG Hai Lang | 1,500 | 2028-29 | T&T Group - Hanwha - Kospo - Kogas | Building FS |
| LNG Ca Na | 1,500 | 2029-30 | | Choosing investors |
| LNG Son My 2 | 2,250 | 2027-29 | AES Group | Building FS |
| LNG Son My 1 | 2,250 | 2027-29 | EDF - Sojitz - Kyushu - Pacific Group | Building FS |
| LNG Long Son | 1,500 | 2031-35 | PGV - TTC - TV2 - Mitsubitshi - GE - GTPP | |
| LNG Long An 1 | 1,500 | 2021-30 | VinaCapital - GE | Building FS |
| LNG Long An 2 | 1,500 | 2031-35 | VinaCapital - GE | |
| Domestic gas-fired power | | | | |
| O Mon III, IV (Block B) | 2,100 | 2028-30 | PVN | Transferred to PVN from Jun 23, preparing GSA |
| O Mon II (Block B) | 1,050 | 2027 | Vietracimex - Marubeni | |
| Dung Quat 1,2,3 (CVX) | 2,250 | 2028 | | |
| Mien Trung 1,2 (CVX) | 1,500 | 2030 | PVN | |

Sources: PDP8, MBS Research

Figure 27: International LNG prices decreased from peak 2022, narrowing the price gap with domestic gas prices and supporting Vietnam LNG imported activities



Sources: Bloomberg, MBS Research

Coal-fired power: Robust mobilization outlook remains intact

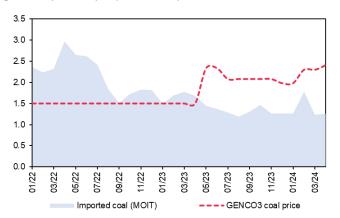
In 1Q24, coal-fired power output recorded robust growth of 43% yoy, accounted for largest share of system output. A0 prioritized to mobilize coal-fired power at optimal rate amidst higher-than-expected power demand surge. Additionally, hydropower reservoirs had to maintain water levels to serve hot months, and the coal price drop brings a more favorable ASP against other baseload sources. In



2024-25F, we see robust mobilization outlook for coal-fired power, especially for power plants in the North thanks to 1) Northern's power demand grows at highest rate, exerting pressure on the national supply amidst significantly lower capacity growth rate; 2) Coal prices level to normalize from 2022 peak, supporting the power sources competitiveness compared to gas-fired power. We see outstanding coal-fired power companies in the Northern region such as QTP, HND and PPC to be the main beneficiary from 2024 onwards.

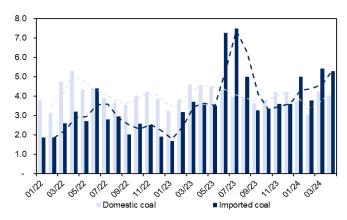
In the long term, coal-fired power no longer be a focal point due to high emissions and difficulties in capital arrangement. Until 2030, only 6 coal-fired power plant left will be implemented, mostly BOT projects. Some of them are currently under construction and soon come online such as BOT Quang Trach 1 (1,403MW) and Na Duong 2 (110MW). On the other hand, for the list of projects currently at deployment risk, the MOIT will consider terminating contracts if these projects are unable to show strong probability to proceed by the end of Jun 2024.

Figure 28: Coal prices slightly went up in 4M24, but stayed lower than gas-fired power input (Unit: VNDm)



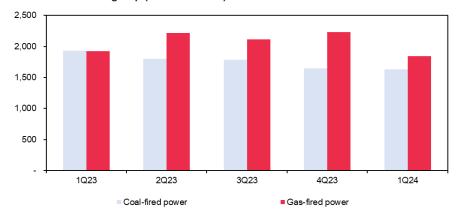
Sources: GENCO3, MOIT, MBS Research

Figure 29: Coal input sources remained sufficient in 2024-25, thanks to increase coal imported from 3Q23 (Unit: billion tons)



Sources: MOIT, MBS Research

Figure 30: Coal-fired ASP tend to be lower than gas-fired power in 1Q24, benefiting higher mobilization of this group (Unit: VND/kWh)



- (*) Coal-fired power plants include: Vung Ang 1, Mong Duong, Vinh Tan thermal
- (*) Gas-fired power plant include: Phu My cluster, Nhon Trach 1&2, Ca Mau 1&2

Sources: POW, GENCO3, MBS Research

Hydropower exits El Nino phase starting 2Q24

According to the International Research Institute for Climate and Society (IRI), the El Niño phase ended in Q2/24, and there is a high probability of La Niña returning by August 2024. We expect hydropower sector to mobilized positively from 2Q24 onward, compared to low base 1Q24, when power plants maximized water storage, preparing for peak summer season. Currently, hydropower



reservoirs are maintaining at high water levels, ready for mobilization. For 2025, hydropower could sustain positive mobilization as La Nina typically lasts between 15-18 months bases on historical data. Given the low cost, hydropower plants are the preference power sources to mobilize from EVN.

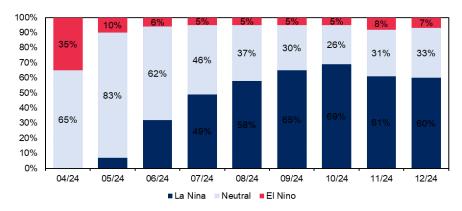
On the other hand, hydropower ASP might slump in 2024, negatively affect revenue growth. This is primarily due to MOIT early-year decision to increase contracted output (Qc) ratio from 90% to 98% in 2024, equating to lower market output (Qm) from 10% to only 2%. The Qm portion basically be the output that hydropower proactively bidding in the CGM to gain higher selling price, and by cutting it, meaning a lower room for mobilized at higher profit portion. We see the Qm reduction is a measure for A0 to better control dispatch operation of hydropower plants, preventing power shortages like those experienced in 1H23. However, we expect small hydropower (< 30MW) outlook to be intact thanks to favorable avoided cost tariffs and companies with high proportion of small hydropower such as PC1, HDG and GEG will ride on this trend.

Figure 31: Although the impact of El Nino lasted until the end of 1Q24, several hydropower reservoirs maintained high water level mainly due to low mobilization from A0, especially plants in the North had to store water to prepare for peak season 2Q-3Q24

| | | Jan-22 | Feb-22 | Mar-22 | Apr-22 | May-22 | Jun-22 | Jul-22 | Aug-22 | Sep-22 | Oct-22 | Nov-22 | Dec-22 | Jan-23 | Feb-23 | Mar-23 | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Oct-23 | Nov-23 | De c-23 | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 |
|--------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| | Son La | 22.5% | 21.6% | 20.7% | 20.6% | 18.4% | 15.7% | 13.7% | 12.6% | 17.7% | 22.1% | 21.3% | 21.7% | 19.7% | 18.7% | 17.3% | 13.9% | 3.2% | 1.9% | 10.1% | 16.5% | 18.5% | 22.2% | 22.8% | 22.7% | 22.8% | 22.7% | 22.6% | 21.2% | 20.5% |
| North | Hoa Binh | 37.3% | 33.0% | 34.4% | 33.5% | 31.9% | 33.6% | 30.4% | 24.7% | 35.4% | 44.1% | 43.3% | 42.9% | 43.7% | 38.3% | 36.3% | 39.2% | 38.4% | 28.7% | 21.4% | 33.0% | 40.6% | 44.9% | 45.9% | 45.8% | 44.7% | 42.4% | 41.4% | 42.1% | 37.1% |
| west | Thac Ba | 17.6% | 15.1% | 13.2% | 10.4% | 9.2% | 13.7% | 15.5% | 18.8% | 23.7% | 26.0% | 25.7% | 24.8% | 21.3% | 15.2% | 11.7% | 7.1% | 1.0% | 0.5% | 5.1% | 11.5% | 16.5% | 21.4% | 21.6% | 22.2% | 20.6% | 16.8% | 16.1% | 15.9% | 15.6% |
| | Ban Chat | 10.1% | 9.8% | 9.2% | 8.3% | 7.1% | 9.1% | 10.0% | 8.8% | 8.9% | 9.4% | 9.6% | 9.6% | 9.1% | 8.3% | 6.4% | 3.2% | 1.3% | 1.3% | 4.3% | 8.3% | 9.7% | 10.0% | 10.2% | 10.2% | 10.2% | 10.1% | 9.8% | 8.8% | 7.8% |
| North | Ban Ve | 25.9% | 23.8% | 22.4% | 19.0% | 14.9% | 13.0% | 10.7% | 14.2% | 22.4% | 28.0% | 28.5% | 27.6% | 25.1% | 21.3% | 18.0% | 13.7% | 7.2% | 1.3% | 1.1% | 21.3% | 25.8% | 28.1% | 28.5% | 28.7% | 27.7% | 25.9% | 24.3% | 22.5% | 20.0% |
| Centra | Quang Tri | 6.2% | 5.8% | 5.2% | 4.8% | 4.1% | 3.4% | 2.3% | 1.2% | 1.2% | 4.3% | 5.9% | 6.5% | 6.4% | 5.9% | 5.3% | 4.4% | 3.4% | 2.5% | 0.8% | 0.3% | 0.6% | 3.3% | 5.9% | 6.6% | 6.6% | 6.5% | 6.5% | 6.4% | 6.2% |
| | Trung Son | 5.3% | 5.3% | 2.8% | 1.7% | 2.3% | 5.6% | 1.9% | -0.5% | -0.3% | 1.6% | 1.0% | 4.8% | 3.5% | -0.3% | -1.6% | -1.7% | -2.2% | 1.9% | 0.6% | 0.0% | -0.1% | 4.3% | 6.1% | 5.7% | 6.1% | 5.9% | 4.8% | 3.7% | 5.8% |
| | Vinh Son A | 1.3% | 1.2% | 1.2% | 1.2% | 1.1% | 1.2% | 1.2% | 1.2% | 1.2% | 1.4% | 1.4% | 1.4% | 1.3% | 1.2% | 1.2% | 1.1% | 1.0% | 0.9% | 0.7% | 0.7% | 0.6% | 0.7% | 1.3% | 1.3% | 1.3% | 1.2% | 1.1% | 1.0% | 1.0% |
| | Vinh Son B | 1.5% | 1.5% | 1.4% | 1.2% | 1.0% | 0.8% | 1.1% | 1.3% | 1.4% | 1.7% | 1.7% | 1.6% | 1.6% | 1.5% | 1.3% | 1.1% | 1.0% | 0.7% | 0.6% | 0.5% | 0.5% | 0.7% | 1.1% | 1.4% | 1.5% | 1.4% | 1.4% | 1.2% | 1.1% |
| | Song Ba Ha | 2.9% | 3.0% | 2.7% | 2.3% | 2.6% | 2.4% | 1.5% | 2.2% | 1.8% | 1.9% | 2.3% | 3.7% | 3.4% | 3.0% | 2.7% | 1.8% | 1.2% | 2.0% | 1.9% | 1.8% | 1.2% | 1.7% | 1.9% | 3.4% | 3.7% | 3.7% | 3.4% | 2.8% | 2.6% |
| Centra | A Vuong | 11.3% | 10.8% | 9.9% | 10.3% | 9.5% | 9.0% | 8.3% | 7.1% | 6.0% | 10.4% | 10.0% | 11.1% | 11.6% | 11.0% | 10.1% | 7.4% | 6.3% | 6.7% | 5.2% | 4.0% | 2.8% | 6.3% | 10.8% | 11.6% | 11.5% | 11.2% | 10.6% | 10.0% | 8.7% |
| | Song Hinh | 6.2% | 6.6% | 6.4% | 6.6% | 6.6% | 6.5% | 5.8% | 5.3% | 5.2% | 5.4% | 6.1% | 6.6% | 6.6% | 6.6% | 6.5% | 5.8% | 5.0% | 4.3% | 3.2% | 1.9% | 1.1% | 1.8% | 5.4% | 6.6% | 6.6% | 6.3% | 6.1% | 5.5% | 5.0% |
| | Song Bung 2 | 6.7% | 6.5% | 5.8% | 5.7% | 6.0% | 6.4% | 5.9% | 4.4% | 3.0% | 5.9% | 5.7% | 6.6% | 6.6% | 6.1% | 5.8% | 5.3% | 5.5% | 4.8% | 3.5% | 2.8% | 1.3% | 4.8% | 6.1% | 6.9% | 6.9% | 6.8% | 6.2% | 5.7% | 5.1% |
| | Buon Kuop | 0.3% | 0.3% | 0.3% | 0.2% | 0.4% | 0.5% | 0.4% | 0.5% | 0.6% | 0.5% | 0.3% | 0.3% | 0.2% | 0.2% | 0.3% | 0.1% | 0.3% | 0.4% | 0.4% | 0.6% | 0.5% | 0.6% | 0.6% | 0.6% | 0.2% | 0.2% | 0.6% | 0.5% | 0.6% |
| | Srepok 3 | 1.3% | 1.1% | 1.1% | 0.7% | 0.9% | 1.3% | 1.3% | 0.9% | 0.9% | 0.9% | 1.0% | 1.2% | 1.0% | 0.7% | 0.7% | 0.0% | 0.3% | 0.5% | 0.7% | 0.8% | 0.9% | 1.0% | 1.4% | 1.3% | 0.9% | 0.4% | 0.8% | 1.3% | 1.1% |
| | An Khe | 0.4% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.3% | 0.4% | 0.5% | 0.5% | 0.4% | 0.4% | 0.3% | 0.3% | 0.3% | 0.3% | 0.2% | 0.2% | 0.2% | 0.3% | 0.3% | 0.3% | 0.5% | 0.4% | 0.2% | 0.2% | 0.2% | 0.2% | 0.1% |
| High | Pleikrong | 6.1% | 6.0% | 6.1% | 6.0% | 4.6% | 1.9% | 1.4% | 2.6% | 4.0% | 6.0% | 5.9% | 6.1% | 6.0% | 5.7% | 5.4% | 4.4% | 3.1% | 1.7% | 1.8% | 4.7% | 5.8% | 6.1% | 6.1% | 6.1% | 6.1% | 6.0% | 5.5% | 4.9% | 4.7% |
| lands | laly | 4.7% | 4.0% | 2.7% | 1.4% | 2.2% | 2.9% | 2.4% | 2.3% | 3.9% | 4.9% | 4.4% | 4.4% | 4.3% | 3.6% | 2.2% | 1.3% | 0.7% | 2.6% | 2.2% | 3.8% | 4.4% | 4.9% | 5.0% | 4.7% | 3.6% | 2.5% | 2.1% | 1.6% | 1.5% |
| | Dong Nai 3 | 3.4% | 3.0% | 2.5% | 2.0% | 1.8% | 1.4% | 1.3% | 1.4% | 1.8% | 2.6% | 3.1% | 3.3% | 3.2% | 2.7% | 2.3% | 1.4% | 0.4% | 0.3% | 0.8% | 1.9% | 2.4% | 3.1% | 3.5% | 3.5% | 3.3% | 3.1% | 2.9% | 2.5% | 1.9% |
| | Se San 4 | 2.1% | 1.1% | 1.1% | 1.4% | 0.7% | 0.6% | 1.1% | 2.0% | 2.1% | 2.1% | 2.0% | 1.8% | 1.8% | 1.4% | 0.6% | 0.1% | 0.1% | 0.5% | -59.5% | 2.0% | 2.1% | 2.1% | 2.4% | 2.2% | 2.2% | 2.2% | 2.1% | 0.9% | 0.2% |
| | Ham Thuan | 4.9% | 4.2% | 3.4% | 2.6% | 2.0% | 2.4% | 2.5% | 2.6% | 2.8% | 3.8% | 4.3% | 4.5% | 4.3% | 3.7% | 2.9% | 1.8% | 1.1% | 1.4% | 1.9% | 4.4% | 4.8% | 5.1% | 5.2% | 5.2% | 5.1% | 4.6% | 4.1% | 3.3% | 2.5% |
| | Da Mi | 0.4% | 0.4% | 0.2% | 0.3% | 0.3% | 0.4% | 0.3% | 0.3% | 0.4% | 0.5% | 0.3% | 0.4% | 0.2% | 0.4% | 0.3% | 0.4% | 0.3% | 0.3% | 0.5% | 0.3% | 0.5% | 0.5% | 0.6% | 0.4% | 0.2% | 0.2% | 0.3% | 0.4% | 0.4% |
| | | 22.9% | 22.6% | 21.7% | 20.1% | 13.2% | 6.7% | 6.7% | 12.4% | 17.1% | 20.1% | 18.0% | 17.6% | 17.3% | 15.7% | 12.9% | 5.9% | 2.8% | 6.6% | 10.5% | 21.5% | 22.4% | 23.1% | 23.0% | 23.7% | 23.7% | 23.0% | 22.0% | 19.9% | 16.1% |
| East | Thac Mo | 9.3% | 8.2% | 7.3% | 5.8% | 4.5% | 3.9% | 5.2% | 7.9% | 9.1% | 9.8% | 9.9% | 9.4% | 8.7% | 7.7% | 6.6% | 4.9% | 1.8% | 0.8% | 2.7% | 7.7% | 9.2% | -12.1% | 10.1% | 10.0% | 9.6% | 8.9% | 8.1% | 7.0% | 5.7% |

Sources: EVN, MBS Research

Figure 32: According to IRI, there is a high probability of La Niña returning by August 2024



Sources: IRI, MBS Research



We choose POW, REE for long-term investment strategy

| Stock | Rating | Target price (VND/share) | Investment thesis |
|-------|--------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POW | Buy | 14,800 | Leading gas-fired power companies, stand to benefit from the government's long-term strategy, focused on developing gas-fired power until 2035. POW has favorable opportunity to enhance its position by investing in key gas-fired power projects, outlined in the national plan including LNG Nhon Trach 3&4 (1,600MW – come online in 2024-25) and LNG Quang Ninh (1,500MW – come online in 2028-29). 2024 Net profit to edge up slightly 10% yoy from low base 2023, with significant improvement from 2Q24 compare to low level in 1Q24 thanks to 1) The recovery of gas-fired power output mobilization in peak load season and no major maintenance in 2024; 2) Vung Ang 1 operating at full capacity from August 2023, currently running at high rate thanks to demand surge in the North; 3) Higher potential net profit growth, coming from one-off earnings include Vung Ang 1 compensation and EVN Viet-Lao divestment. Severe gas shortage risk in the following year; however, long-term outlook remains intact with clear direction towards LNG-to-power development. At the moment, POW stock valuation remains attractive compared to its peers. |
| REE | Buy | 71,000 | REE maintained strong cash flow (CFO/revenue averaging more than 15%) by mainly investing in cash cow businesses such as power, water and office leasing. This abundant cash flow and healthy financial status enable REE to proactive pursue future investment with efficient potential return. Notably, REE aims to invest in large-scale offshore wind farm in the long-term. Despite the underperformance of its hydropower portfolio – the largest investment category in 2023 and 1Q24, the segment is expected to recover from 2Q24 to 2025 thanks to the resurgence of La Nina phase. Additionally, E.Town 6 when coming operation from 3Q24 to support bottom line growth from 2024-25. We see REE owns high-quality and profitable assets, and also is well-positioned for long-term growth. |
| PC1 | Buy | 32,600 | As an industry leader in power construction sector, PC1 is poised to benefit from 2024 key project - the 500kV transmission line Quang Trach - Pho Noi. Additionally, several signal for pushing RE policies issuance will leverage PC1 position as an outstanding EPC wind power contractor. In 2024, PC1 expects a strong EPS growth of 206% yoy, driven by the profitability point of new key business segments include 1) full-year mining operations; 2) profit recognition from IP; 3) Hydropower and M&E activities to recover from low base. For long-term outlook, PC1 continues to expand its power capacity, focusing on hydropower and wind power. The company developing two small hydropower plants - Bac Lac A (30MW) and Thuong Ha (18MW) in 2025-26. Besides, PC1 is closely monitoring investment opportunities for a wind power project in Quang Tri. From 2024, although exchange rate risk remained, we see lower interest rate will greatly support PC1 bottom line following its high D/E ratio. |
| HDG | Hold | 32,300 | HDG advantaged in securing low-cost financing compared to its peers. This advantage stems from its project execution capabilities with optimal output, and cost-effective investment. At the moment, the company proactively negotiates with bank to secure more favorable interest rate. We see hydropower output to recover from low base, but revenue somewhat offsetting buy lower ASP. 2024 primary EPS growth driver will come from Charm Villa Phase 3 handover. We see less serious risks from Hong Phong 4 and SP Infra 1 violation, however, HDG valuation is fair at the moment. |
| QTP | NR | NA | In 2024, coal-fired power to enjoy optimal output mobilization, supported by demand surge higher than expected and the persistent risk power shortage in the North. Gross profit margin improves due to decreased in mixed-coal price. Minimal coal shortage risk thanks to sufficient import value from 3Q23, and QTP plants stay near coal mines. 2024-25, QTP is projected to a boost in earnings, driven by sufficient outlook mobilization and power depreciation cost. High dividend yield of ~7-8% in 2024, the company has potential to enhance higher dividend in the following years, supported by the phase-out of long-term debt from 2026-27. |
| NT2 | NR | NA | Bleak outlook in 2024-25, mainly due to difficulties in gas supply, leading to low output assigned from A0. We see NT2 to incur losses this year. Payment cash flow from EVN is improved, however gas shortage to be the major problem for the companies. POW and other parties are building new mechanisms to supplement LNG for domestic gas-fired power plants in near future. |
| TV2 | NR | NA | TV2 is well-positioned to benefit from the recovery in power construction investment in 2024, particularly with the 500kV lines, where TV2 involved in 3/4 design and consulting packages. TV2 has wealthy experience as EPC contractor for RE and biomass power plants, expected to bring benefits in 2025, following the issuance of new RE pricing framework. Major growth potential from Song Hau 2 thermal power plants (2,120MW) with total investment of US\$2.4bn. TV2, in partnership with Sunway Construction (Malaysia), will serve as the EPC contractor for the project. Successful implementation of this project could contribute about 70-80% to revenue growth during 2025-27. However, if the project fails to meet feasibility requirements by the end of June 2024, the contract may be considered for cancellation. |

^(*) Power stock pick under MBS coverage (*) NR: Non-rated

Bamboo Capital Group JSC

Average

Median



Figure 33: Peer comparison Target P/E (x) P/BV (x) **ROE (%)** Company Ticker Price Recom. Mkt Cap EV/EBITDA (x) price LC\$ LC\$ US\$m TTM FY24F Current FY24F TTM FY24F TTM FY24F **Bloomberg** Gas-fired power peer **PVPower** POW VN 12,600 14,800 ADD 1,159.4 36.0 40.3 0.9 0.9 6.4 5.8 2.5 2.3 **GENCO 3** PGV VN 22,000 NA NR 966.8 12.7 9.6 1.6 1.4 6.5 6.6 12.2 15.4 PetroVietnam Nhon Trach 2 JSC NT2 VN 23,350 NR 305.0 64.8 1.8 6.3 2.4 NA 1.8 na na na 37.8 24.9 1.4 1.4 6.4 6.2 5.7 8.9 Average Median 36.0 24.9 1.6 1.4 6.4 6.2 2.5 8.9 Coal-fired power peer HAI Phong Thermal Power JSC HND VN 23,700 NA NR 279.8 12.5 12.9 1.1 1.1 4.5 3.9 8.7 13.1 Quang Ninh Thermal Power JSC QTP VN 17,400 NA NR 270.2 11.2 6.9 1.5 1.2 3.6 3.6 12.6 14.0 Pha Lai Thermal Power JSC PPC VN 16,650 NA NR 206.0 10.5 6.8 1.0 1.0 19.4 8.4 9.5 14.3 Average 11.4 8.9 1.2 1.1 9.2 5.3 10.3 13.8 Median 11.2 6.9 1.1 1.1 4.5 3.9 9.5 14.0 Hydropower peer Vinh Son - Song Hinh Hydropower VSH VN 49,000 NA NR 452.5 22.2 NA 2.5 NA 6.1 NA 10.5 NA Hua Na Hydropower JSC HNA VN 23,400 NA NR 179.4 33.6 NA 1.7 NA 4.6 NA 5.0 NA Central Hydropower JSC CHP VN 34,750 NA NR 149.0 19.5 NA 2.6 NA 6.4 NA 13.4 NA Average 25.1 NA 2.3 NA 5.7 NA 9.6 NA Median 22.2 NA 2.5 NA 6.1 NA 10.5 NA RE power peer Gia Lai Electricity JSC **GEG VN** 14,200 NA NR 181.9 29.3 17.5 1.1 1.0 10.1 8.3 2.8 5.8 Multi-segment peer REE Corp REE VN 62,900 71,000 ADD 931.5 14.0 11.1 1.5 1.3 9.8 8.5 11.5 12.5 Ha Do Group JSC HDG VN 34,350 32,300 HOLD 319.7 14.0 9.8 1.3 0.1 7.4 5.9 9.9 14.2 PC1 Group JSC PC1 VN 28,650 32,600 ADD 351.9 44.3 17.7 1.5 1.4 8.8 7.8 3.6 11.5

7.8 Sources: Bloomberg, MBS Research

NA

7.4

0.5

6.4

6.8

NA

12.7

12.5

Figure 34: 2024-25 business results projection under MBS power coverage

BCG VN

9,630

NA

NA

182.0

67.6

35.0

29.2

NA

12.9

11.1

0.5

1.2

1.4

NA

0.9

1.3

26.1

13.0

9.3

| VNDbn | | PC1 | | | POW | | | REE | |
|-------------------------------|---------|---------|---------|--------|--------|--------|---------|--------|--------|
| | 2023 | 2024 | 2025 | 2023 | 2024 | 2025 | 2023 | 2024 | 2025 |
| Revenue (VNDbn) | 7,803 | 9,925 | 10,951 | 27,945 | 32,012 | 47,306 | 8,579 | 9,421 | 9,920 |
| % growth | -6.6% | 27.2% | 10.3% | -1.0% | 14.6% | 47.8% | -8.5% | 9.8% | 5.3% |
| Gross profit | 1,574 | 2,030 | 2,246 | 2,183 | 2,438 | 4,194 | 3,710 | 3,598 | 3,852 |
| Gross margin (%) | 20.2% | 20.5% | 20.5% | 7.8% | 7.6% | 8.9% | 43.2% | 38.2% | 38.8% |
| EBITDA | 1,958 | 2,293 | 2,490 | 4,213 | 4,565 | 6,616 | 4,180 | 4,281 | 4,533 |
| EBITDA margin (%) | 25.1% | 23.1% | 22.7% | 15.1% | 14.3% | 14.0% | 48.7% | 45.4% | 45.7% |
| Net profit (VNDbn) | 137 | 583 | 858 | 1,075 | 1,189 | 1,648 | 2,188 | 2,304 | 2,549 |
| % growth | -70.3% | 327.2% | 47.0% | -47.8% | 10.6% | 38.6% | -18.7% | 5.3% | 10.6% |
| EPS (VND/share) | 439 | 1,876 | 2,758 | 459 | 508 | 704 | 4,656 | 4,903 | 5,424 |
| BVPS (VND/share) | 19,777 | 22,247 | 25,548 | 14,589 | 15,453 | 17,258 | 41,174 | 46,125 | 51,812 |
| Net cash/share (VND/share) | -25,272 | -23,151 | -22,725 | -789 | -5,547 | -7,597 | -14,016 | -8,705 | -1,981 |
| D/E (x) | 1.8 | 1.7 | 1.6 | 0.4 | 0.7 | 0.7 | 0.7 | 0.7 | 0.5 |
| Dividend yield (%) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.4% | 2.4% | 2.4% |
| ROAE (%) | 2.2% | 8.4% | 10.8% | 3.6% | 3.8% | 4.9% | 11.3% | 10.6% | 10.5% |
| ROAA (%) | 0.7% | 2.7% | 3.7% | 1.7% | 1.6% | 1.8% | 6.4% | 6.4% | 6.7% |

Sources: MBS Research



| Figure 35: 2024-25 bus | ness results projection under MBS power | er coverage |
|------------------------|-----------------------------------------|-------------|
| VNDbn | HDG | |

| VNDbn | | HDG | | | NT2 | | QTP | | | |
|-------------------------------|---------|---------|---------|--------|--------|---------|--------|--------|--------|--|
| | 2023 | 2024 | 2025 | 2023 | 2024 | 2025 | 2023 | 2024 | 2025 | |
| Revenue (VNDbn) | 2,882 | 3,291 | 3,558 | 6,386 | 6,035 | 7,151 | 12,058 | 12,091 | 11,760 | |
| % growth | -19.5% | 14.2% | 8.1% | -27.3% | -5.5% | 18.5% | 15.8% | 0.0% | 0.0% | |
| Gross profit | 1,716 | 2,150 | 2,235 | 510 | (28) | 352 | 817 | 1,106 | 1,527 | |
| Gross margin (%) | 59.5% | 65.3% | 62.8% | 8.0% | -0.5% | 4.9% | 6.8% | 9.1% | 13.0% | |
| EBITDA | 1,920 | 2,386 | 2,533 | 1,129 | 599 | 786 | 1,565 | 1,592 | 1,416 | |
| EBITDA margin (%) | 66.6% | 72.5% | 71.2% | 17.7% | 9.9% | 11.0% | 13.0% | 13.2% | 12.0% | |
| Net profit (VNDbn) | 712 | 977 | 1,149 | 473 | -64 | 267 | 612 | 816 | 1,181 | |
| % growth | -35.1% | 37.3% | 17.5% | -46.4% | na | -517.5% | -19.9% | 33.4% | 44.7% | |
| | | | | | | | | | | |
| EPS (VND/share) | 2,142 | 2,975 | 3,472 | 1,643 | -222 | 928 | 1,360 | 1,723 | 2,493 | |
| BVPS (VND/share) | 19,635 | 21,595 | 25,524 | 15,066 | 13,307 | 12,750 | 13,286 | 14,102 | 15,706 | |
| Net cash/share (VND/share) | -15,675 | -12,100 | -10,000 | 4,753 | 6,663 | 6,904 | 1,964 | 1,922 | 1,987 | |
| D/E (x) | 0.9 | 0.8 | 0.6 | 0.5 | 0.6 | 0.7 | 0.2 | 0.0 | 0.0 | |
| Dividend yield (%) | 3.2% | 3.2% | 3.2% | 6.5% | 6.5% | 6.5% | 8.6% | 8.6% | 8.6% | |
| ROAE (%) | 11.9% | 14.8% | 14.7% | 10.9% | -1.7% | 7.3% | 10.2% | 12.9% | 16.7% | |
| ROAA (%) | 4.9% | 6.3% | 6.9% | 6.7% | -1.0% | 4.3% | 7.6% | 11.3% | 15.1% | |

Sources: MBS Research



DISCLAIMER

This report has been written and distributed by MBS Research Center, MBS Securities JSC (MBS). It is based on information obtained from sources believed to be reliable, but MBS does not make any representation or warranty, express or implied, as to its accuracy, completeness, timeliness or correctness for any particular purpose. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained herein does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This report and all of its content belongs to MBS. No part of this report may be copied or reproduced in any form or redistributed in whole or in part, for any purpose without the prior written consent of MBS.

ABOUT MBS

Founded in May 2000 by the Military Commercial Joint Stock Bank (MB), MB Securities Joint Stock Company (MBS) is one of the first six securities companies in Vietnam. After years of development, MBS has grown into one of the premier brokerage houses in the country. In two consecutive years between 2009 and 2010, MBS leads the brokerage house in terms of market share on both Hanoi Stock Exchange (HNX) and HCMC Stock Exchange (HOSE) and continuously ranked among the Top 5 of market share at both stock exchanges.

Address:

MB Building, 21 Cat Linh, Dong Da Dist., Hanoi Tel: + 8424 7304 5688 - Fax: +8424 3726 2601

Website: www.mbs.com.vn

MBS RESEARCH TEAM

| Director, Head of Research | Deputy Head of Equity Research |
|----------------------------|--------------------------------|
| 11' T TU' 17' I | D M |

| Hien Tran Th | i Khanh | Dzung | Nguyen | Tien |
|--------------|---------|-------|--------|------|
| | | | | |

Macro & Market StrategyBanking – Financial ServicesHung Ngo QuocLuyen Dinh CongAnh Le MinhPhuong Do LanHao Nauven Duc

Consumer - Retail Industrials - Energy
Ly Nguyen Quynh Tung Nguyen Ha Duc
Huyen Pham Thi Thanh

Phuong Do Lan Tri Nguyen Minh
Hao Nguyen Duc Thanh Le Hai

Industrials - Energy

Real Estate

Duc Nguyen Minh