

Credit Market Commentary #5

The Bankability of Renewable Energy Projects Upon PDP8: from Credit Rating and Legal Perspectives

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Introduction

On 15 May 2023, the Government of Vietnam issued the long-awaited National Power Development Plan for 2021 – 2030, with a vision to 2050 ("PDP8") after multiple drafts and revisions. While PDP8 provides a master plan and lays the foundation for implementing the country's electricity development projects, including renewable energy, there is still a long way to go in providing further implementation guidance.

One of the many concerns from a foreign investment or financing perspective is the bankability of the projects under this new policy document. We are delighted to jointly bring investors, lenders, and interested stakeholders to the market a special report summarizing critical issues for foreign investors and lenders when considering investments and lending in renewable projects in Vietnam.

We have jointly worked with our legal partner firm Indochine Counsel in this publication to summarize key issues and matters of consideration for foreign investors and lenders when considering investments through equity purchases or granting credit facilities in renewable projects in Vietnam.

Report Highlights

- Vietnam must diversify funding sources beyond the banking credit to fulfill the objectives under PDP8. Corporate bonds and private credit investment from non-bank investors from domestic and international markets should be the primary funding source for this ambitious plan.
- Curtailment is one of the significant risks for renewable projects. The sudden surge of renewable energy plants in 2019-2022 has outweighed the national transmission grid's capacity, leading to the curtailment of solar and wind power. This is due to the intermittent nature of these energy sources and the lack of storage capacity.
- The PDP8 does not provide specific guidance for pricing mechanisms of upcoming projects. The lack of a transparent pricing mechanism could make it difficult for investors to assess the financial viability of the investment.
- It is essential for investors, creditors, and sponsors to carefully assess the necessary steps at each stage of project development. This assessment includes identifying and obtaining all required permits and approvals, understanding the input and output documentation requirements, identifying and mitigating risks, and adhering to quality standards and regulations.
- We believe that the prominent developers with track records in this sector will have better capability to cope with the anticipated lower Feed-in Tariff ("**FIT**") mechanism as they can have better bargaining power with their contractors and suppliers toward an acceptable internal rate of return.
- Vietnam Electricity's ("**EVN**") creditworthiness is an emerging issue, given not only the problem from the power purchase agreement ("**PPA**") but its loss-making financial performance in the last two years. We expect the Government of Vietnam and EVN to implement reforms, undertake restructuring measures, and enhance its governance capacity. Having a credit rating of EVN at both international and domestic rating scales is a significant factor in increasing the bankability of power projects and attracting foreign capital in this sector.
- From a legal perspective, we also analyze and share some important considerations for foreign investors in assessing one power project from planning and licensing to PPA/direct power purchase agreement ("**DPPA**") as the key project documents and security forms for financing:
 - (i) A successful implementation of renewable energy projects in Vietnam relies on proper planning and obtaining the necessary licenses. These processes can be time-consuming and complex, requiring coordination among various authorities and stakeholders.
 - (ii) The market still looks to the ongoing review of renewable projects, including the PPA review and the upcoming DPPA regulations, for signals and guidance of the coming paths.
 - (iii) To attract private investment into grid transmission under the PDP8, regulations need to specify forms of participation, compensation mechanism, and dispute resolution.
 - (iv) For LNG power projects to succeed, pioneer developers will need heavy guidance and support from the authorities, especially concerning on-take and off-take.
 - (v) Efficient foreign loan documentation and registration management are critical for financing renewable energy projects. Borrowers need to comply with the requirements of the State Bank of Vietnam on foreign loan conditions, registration, reporting, repayment, and so on.
 - (vi) Developers still face difficulties in respect of registration of ownership over the constructed power plant to provide acceptable security forms to attract lenders.

1. The PDP8 from Financing Landscape

The PDP8 aims to achieve 25-32% electricity production by 2030. Towards 2050, renewable energy sources will dominate the power sector, comprising up to 64% of power capacity. By then, the Vietnamese Government envisioned a shift away from coal and met the net-zero emissions commitment at UN Climate Change Conference 26&27.

The PDP8 will require significant investment in renewable energy projects and transmission systems. Vietnam has outlined ambitious plans to invest approximately USD 135bn in the power sector between 2021 and 2030, which accounts for about 33% of the country's current GDP. Out of this total, around USD 119.8bn is allocated for power generation projects, focusing on developing wind and LNG sources. An additional USD 14.9bn is earmarked for investments in the power transmission grid. These substantial investment figures demonstrate Vietnam's commitment to enhancing its power infrastructure and expanding its capacity to meet the growing energy demand.

The PDP8 calls for financing mechanism development to mobilize funding, including green loans, climate loans, and bonds from domestic and international sources. The green finance market in Vietnam is relatively new, with considerable growth potential. Thus, much work is needed, including enhancing market awareness, facilitating the market, and establishing a robust verification system to prevent greenwashing practices.

Project risks and bankability persist due to the anticipated lower than the previous FiT. The new FiT mechanism will impact project profitability, while the need for an established pricing mechanism for future wind and LNG energy plants might create uncertainty and financial viability challenges. To mitigate it, the Government needs to implement a transparent and comprehensive pricing framework considering such energy projects' costs and potential returns.

2. Key Issues from Financing Perspective

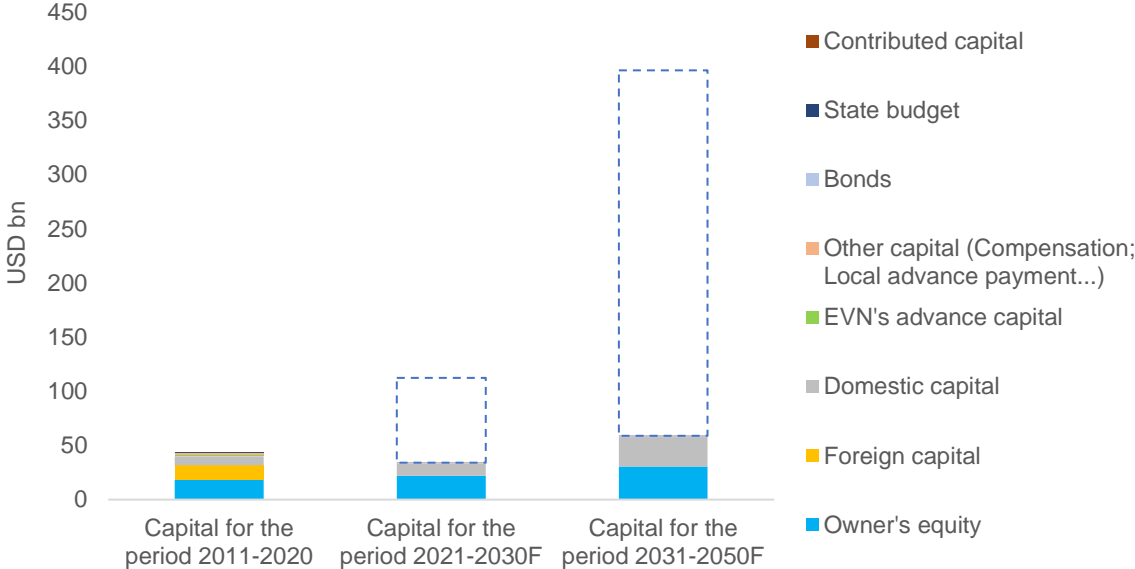
2.1. Financing Gap and Opportunities

Question: Do the Vietnam banking system and the financial market currently have enough financing to meet the development of PDP8?

Answer: Financing the power projects requires very long-term funding, which is an issue for the Vietnamese banking system. The investment amount of USD 135bn for the next ten years would translate into around USD 13.5bn new long-term funding disbursement. This amount is too significant to the banking system's current long-term credit growth.

As of 30 June 2022, the outstanding credit for renewable energy is approximately VND212 trn (~USD 9bn), equivalent to 2.2% of GDP, while the annual investment plan can translate to 3.3% of current GDP for the next ten years. Therefore, relying solely on banking credit is insufficient due to certain limitations. One constraint is the credit growth caps imposed by regulatory authorities, which restrict the annual credit growth of around 14-15%. These limits prevent the banking sector from extending credit at a pace that may be necessary to meet the growing demand for renewable energy projects. Furthermore, each customer has a maximum credit line restriction, set at 15% of the commercial bank's owner equity. This limitation aims to control risk exposure and ensure the banking system's stability; on the other hand, it may curtail the ability of banks to provide large-scale financing for renewable energy projects, which often require substantial capital injections. Consequently, more than the funding available through banking channels alone may be needed to adequately support the development of the renewable energy sector lifespan of energy projects often extends beyond 20 years, aligning with their payback period, while banks predominantly rely on much shorter-term funding sources. Given the mismatch between asset and funding duration, there is a concern that project developers may need help to secure long-term financing on favorable terms. We expect that this "financing gap" would depend significantly on attracting foreign direct investment ("FDI"), foreign indirect investment ("FII"), and corporate bonds, with a specific emphasis on green bonds.

Exhibit 1: Investment for the upcoming periods will depend heavily on international financing sources



Source: FiinRatings compiles from the official PDP8

So given PDP8's scale and scope, there must be other long-term funding sources, including the domestic corporate bond market, international debt markets, and the stock market.

In 1H2023, Vietnam has taken steps to attract foreign capital, notably through the Just Energy Transition Partnership ("**JETP**"). The JETP aims to secure an initial public and private financing of USD 15.5bn over the next 3-5 years to support Vietnam's transition towards green energy. However, this capital appears relatively modest, given the vast scale and scope of PDP8.

Consequently, businesses can explore avenues to access green and sustainable funding by fulfilling criteria related to green objectives, standards, transparent reporting, and independent evaluations. With the Government's supportive policies for renewable energy investment, businesses can pursue unified approaches to funding, particularly by leveraging green bonds issued to finance or refinance projects that positively impact the environment.

2.2. Pricing Mechanism and Impacts on Profitability

Question: *What is the impact of new pricing mechanisms on the profitability of renewable energy developers?*

Answer: The PDP8 does not provide specific guidance for pricing mechanisms of upcoming projects. The lack of a transparent pricing mechanism could make it difficult for investors to assess the financial viability of the investment.

The Vietnamese Government is considering a few options for pricing renewable energy and LNG projects. One option is to continue with the FiT system, which guarantees a fixed price for renewable energy for a set period. However, the FiT system has been criticized for being expensive and discouraging innovation in the renewable energy sector. Another option is to use a competitive bidding system, where developers compete to offer the lowest price for their electricity.

Exhibit 2: New pricing mechanisms are detrimental to transitional projects

<i>unit: cents/kWh</i>	Previous FiT	Ceiling prices for transitional projects	% change
Solar farm	7.1	5.1	-28.2%
Solar floating	7.7	6.5	-15.6%
Onshore wind	8.5	6.8	-20.0%
Offshore wind	9.8	7.8	-20.4%

Sources: FiinRatings compiles from the official PDP8

For the "transitional projects" that could not meet the original deadlines, the new ceiling pricing mechanism in Decision 21/QD-BCT dated 1 July 2023, which is 20-28% lower than the previous 20-year FiT prices, poses difficulty to investors. With a relatively fixed-cost structure and reduced FiT, some transitional solar and wind power projects will reduce their IRR, while others might no longer be economically viable.

Nevertheless, we expect most transitional projects will accept the temporary price to reduce the loss. Hence, this could increase M&A activity among energy businesses with relatively high IRRs of 10-12%, as they can continue projects and access more favorable funding sources.

2.3. Projects Under Planning but Not in PDP8

Question: Will businesses/investors of solar power projects that are under planning but have yet to be approved by the Government face any financial burden with the delay of confirmation until 2030?

Answer: Yes, as we have mentioned above, the booming of solar power from 2019 to 2021 has caused grid congestion, especially in Central-Southern of Vietnam. As a result, projects that have yet to be assigned to investors will be postponed and reconsidered after 2030. The delay in government approval for solar power projects can impose a financial burden on businesses and investors involved in these projects, as they will need to continue bearing the costs of planning and development, such as land acquisition, engineering, and permits, even though they cannot generate revenue from the projects.

Moreover, the delay can create challenges in securing financing for these projects, as lenders may be reluctant to invest in projects that lack official approval. According to PDP8, 4,135.25 MW of solar power projects are currently under construction and awaiting approval, equivalent to 48% of the current solar power capacity. This financial burden resulting from the delay can be particularly significant for small businesses and investors who may need more resources to sustain such delays.

2.4. Grid Overloading and Curtailment Risk

Question: What major risks could affect a renewable project upon Commercial Operation Date ("COD")?

Answer: We consider curtailment as one of the significant risks for renewable projects. The sudden surge of renewable energy plants in 2019-2022 has outweighed the national transmission grid's capacity, leading to the curtailment of solar and wind power. This is due to the intermittent nature of these energy sources and the need for more storage capacity.

In addition, there needs to be a geographical mismatch between energy supply and demand as renewable energy plants are positioned distant from the point of consumption. At the same time, the on-site load concentrates around metropolitan centers and major cities. Remarkably, the solar power source is distributed in low-consumption Central and Southern provinces, in which plants generate high capacity and frequently face curtailment levels between 10%-20% amidst dry seasons. Additionally, these new power sources from Central and Southern provinces can only offer limited support to the North due to technical constraints in the transmission capacity of the 500kV line.

Exhibit 3: Curtailed output of rooftop solar in selected provinces in 2021 (Feb-Sep)

No.	Province	Capacity (MWp)	Curtailed Output (MW)	%curtailment/capacity
1	Binh Duong	808.1	9,967.0	9.1%
2	Dong Nai	690.3	9,354.0	10.0%
3	Binh Phuoc	523.4	8,861.0	12.5%
4	Long An	515.4	8,598.0	12.4%
5	Ninh Thuan	358.0	7,416.0	15.3%
6	Binh Thuan	338.3	5,867.0	12.8%
7	Tay Ninh	306.9	6,015.0	14.5%
8	Kien Giang	295.7	5,379.0	13.5%
9	Lam Dong	293.1	5,057.0	12.8%
10	Ba Ria - Vung Tau	279.7	4,745.0	12.6%
TOTAL		4,408.9	71,259.0	12.0%

Source: FiinRatings compiles from EVNSPC

From investors' perspective, the loss of underutilization is substantial since debt financing can account for 70% of the funding sources and could adversely affect the payback period and operators' ability to meet debt service payments.

From a project perspective, the grid overload problem has also been affecting the IRR of many businesses as they have to invest in additional transmission lines from the project site to connect to the grid. The investment costs for investors will then be increased, especially for small businesses to negotiate grid-connection prices with the private party owning the transmission grid. These issues have been mentioned in PDP8, with the planned investment capital for the power grid in 2021-2050 being USD 49.5bn, including the construction of new 220kV and 500kV transmission lines and substations. We expect this will help resolve the current overloading issues, and regulators will issue documents to provide specific guidance on the types of projects that will be eligible for funding, the criteria for selecting projects, and the process for applying for funding.

2.5. Enhanced Operational Compliance

Question: *What risk is caused by internal operational systems of a "focusing green energy" business that investors need to note?*

Answer: In the context of the release of PDP8 and future policies, it is essential to carefully assess the necessary steps at each stage of project development. This assessment includes identifying and obtaining all required permits and approvals, understanding the input and output documentation requirements, identifying, and mitigating risks, and adhering to quality standards and regulations.

For instance, during the permitting stage, it is essential to establish a comprehensive list of required permits and approvals. This includes being well-informed about the authorities responsible for processing and their contact information when applying for permits/approvals. Also, when selecting the location for a solar power plant during the feasibility stage, it is imperative to assess the risks associated with the local conditions of the site. Feasibility studies should encompass more than just solar radiation or wind speed, incorporating considerations of topography, geology, weather conditions, surrounding ecosystems, and other relevant local factors. These factors can significantly impact the cost-effectiveness and efficiency of the construction phase as well as the operational effectiveness of the plant.

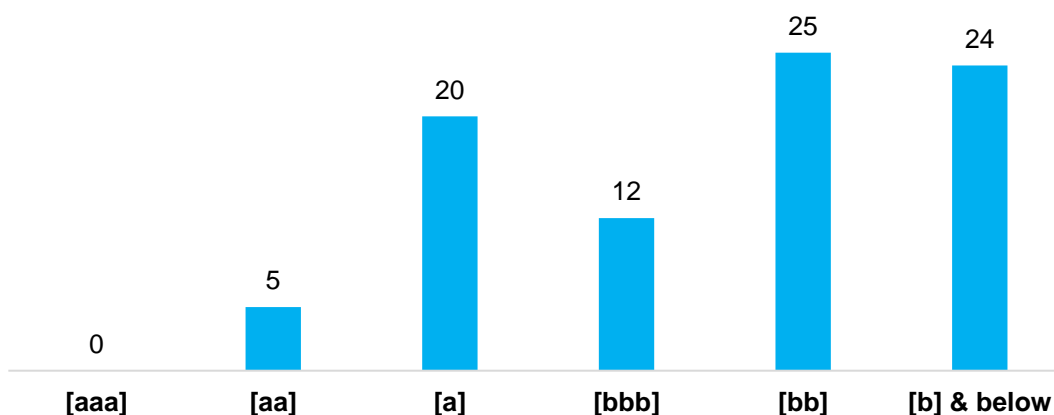
2.6. Will PDP8 Help Improve the Creditworthiness of Large Developers?

Question: *What is FiinRatings' assessment of energy developers, especially renewables? Will PDP8 help enhance their creditworthiness?*

Answer: We believe that the prominent developers with track records in this sector will have better capability to cope with the lower FiT mechanism as they can have better bargaining power with their contractors and suppliers.

We have conducted a credit review of 86 energy developers in Vietnam with a data-driven credit model. The preliminary credit estimates below are also drawn from our experience working with the credit ratings of several issuers and project finance ratings to support foreign investors in this sector.

Exhibit 4: Preliminary Standalone Credit Profile of Power Generation Companies



Source: FiinRatings

Notes: This is the preliminary credit estimate of 86 Vietnamese energy developers based on public information, and not every score is from the solicited credit rating. Please refer to our rating scale: [Rating Scale | FiinRating \(fiinratings.vn\)](#)

Companies with investment-grade credit ratings are typically large state-owned companies and/or hydropower companies with stable operating cash flow. Also, we notice that their projects have attained a PPA scheme, which specifies a price or output commitment. This factor supports a high confidence level in the cash flow generation estimation, which can then be used to cover operating costs, debt obligations, and capital expenditures. We also noticed that some high credit profile companies often have projects with COD for long periods before the deadline with FiT, which helps lower the volume risk. Moreover, they possess low leverage and a good repayment capacity compared to their debt coming due.

In contrast, speculative grades mainly consist of renewable developers, especially wind power. These companies are typically small and medium-sized, privately owned, and many still need to meet the COD requirements for the FiT pricing mechanism, leading to very high price and volume risk. The increased initial investment required for plant construction has also led to higher leverage levels for renewable power generation companies. In addition to bank loans, many businesses had to seek bond issuances from 2019-2021, with an average maturity of 7-8 years. Most of the bonds issued for transitional projects were then shortened to 3-4 years to refinance the absence of cash flow caused by the lack of an electricity price mechanism. This further affects the debt servicing capacity of those companies.

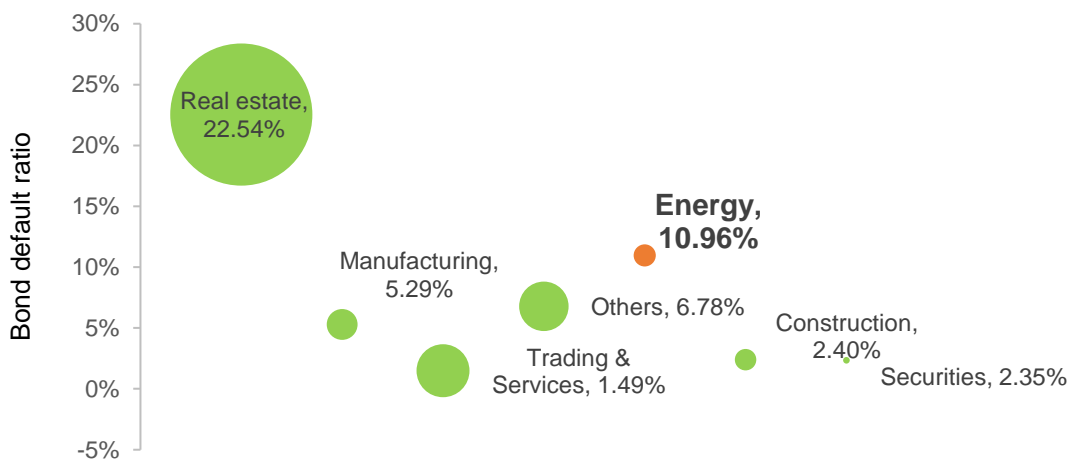
2.7. Corporate bond default situation in the energy sector?

Question: What is the corporate bond default situation in the energy sector?

Answer: As of 4 May 2023, we estimate that nearly 10.96% of current outstanding energy bonds have defaulted, mainly including large-scale renewables developers. The ratio is smaller than the default situation in the real estate sector. Still, many renewable developers have a funding mismatch issue as their projects were previously financed by medium and long-term loans from local banks, which have been maturing recently. In addition, the bond tenor is typically 4-5 years, while the payback period is around 10-15 years, depending on whether it is solar or wind projects. The investors might face pressure from the impending maturity of bonds, despite ongoing debt restructuring efforts. Notable cases have emerged where bond repayment has been delayed, and

bond tenors extended. Furthermore, the deferral of confirmation until 2030, to achieve only an 8.5% share of solar power in the future, may discourage investment in solar power projects until 2030.

Exhibit 5: Default ratio of Energy Bonds vs. Other Sectors as of 4 May 2023



Source: FiinRatings compiles from HNX

Notes: Default ratio = The value of late payment corporate bonds/Total outstanding corporate bond value of each industry. The scale of the circle represents the scale of the industry's exceptional corporate bond value.

2.8. EVN Creditworthiness

Question: EVN has been in a loss-making position for a few years. What is the creditworthiness of EVN, and what are the implications for investing in a Vietnamese power plant?

Answer: The national power transmission system is the cornerstone of the country's electricity infrastructure, making it imperative to remain under State controlling ownership. By doing so, the Government can ensure the reliability and stability of the national power transmission system. Any deviation from this approach could undermine the system, resulting in disruptions and compromising both energy security and national security. Therefore, it is a common and regional practice that EVN holds the exclusive responsibility as the sole buyer and distributor of electricity in the country.

Presently, EVN's corporate structure comprises 05 power corporations, 03 power generation corporations, and 01 transmission corporation. Although EVN only represents approximately 38% of Vietnam's electricity generation capacity, it is the sole purchaser.

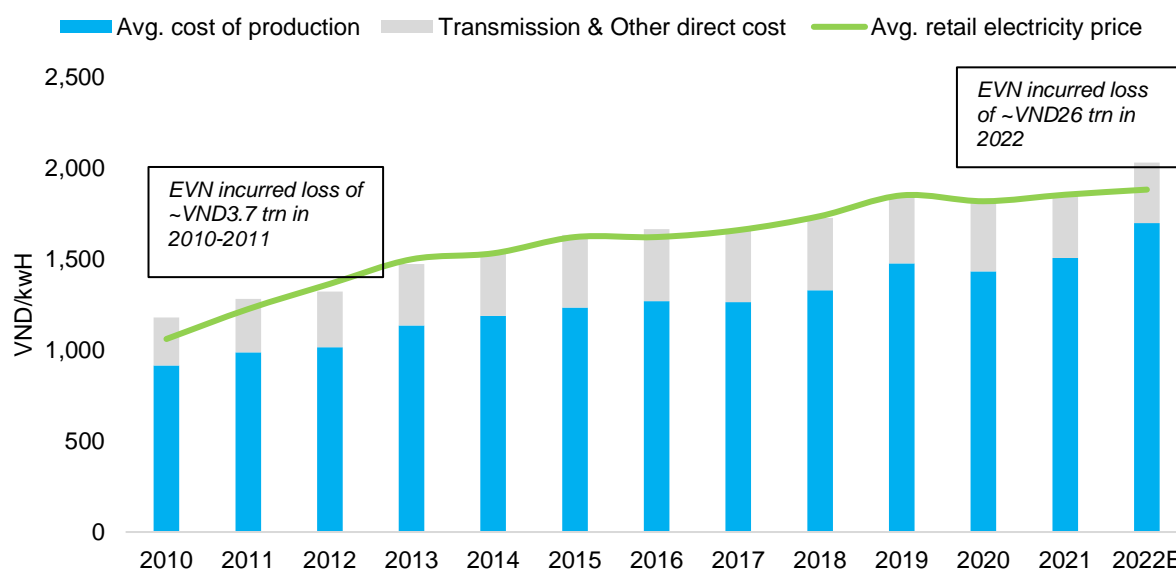
Exhibit 6: EVN's key financial metrics

Key ratios	Unit	2018	2019	2020	2021	1H2022
Revenue	VND bn	338,500	394,890	403,283	426,147	221,231
Net profit	VND bn	6,818	9,720	14,480	14,725	(16,586)
Total Assets	VND bn	706,504	721,460	729,452	745,403	673,157
Total Debt	VND bn	405,077	398,750	386,453	351,111	327,520
Total Equity	VND bn	217,446	226,414	240,195	247,910	230,680
EBITDA margin	x	31.80%	25.10%	25.20%	20.00%	-5.80%
Net margin	x	2.00%	2.50%	3.60%	3.50%	-7.50%
Debt/Equity	x	1.86	1.76	1.61	1.42	1.42
Debt/EBITDA	x	3.8	4	3.8	4.1	EBITDA < 0
Interest coverage	x	3.7	4.4	4.4	5.8	EBITDA < 0

Sources: FiinRatings from EVN's consolidated financial statements

In 2022, EVN's challenges arose from the escalating input prices in the power generation phase, which include coal, gas, and oil. These increases have led to higher costs of procuring external electricity, affecting the company's financial position. On the other hand, electricity retail prices are regulated by the Ministry of Industry and Trade ("**MOIT**") and might take longer to adjust. According to the MOIT, the estimated loss of EVN was VND 26trn in 2022, equivalent to about 10.5% of EVN's total equity as of FY2021. To address these issues, EVN raised retail electricity prices by 3% in 2022. However, a moderate adjustment in electricity prices alone is insufficient to deal with the loss-making by EVN.

Exhibit 7: Average price and cost of electricity in Vietnam (2010-2022E)



Sources: FiinRatings compiles from EVN, MOIT

Regarding credit rating, the ratings on government-related entities in the energy sector are often equalized with those of the sovereign rating. On a standalone credit profile basis, entities with

similar financial metrics to EVN usually range in a category lower than sovereign rating, reflecting deteriorating debt servicing capacity because tariff increases are insufficient to cover the increased fuel and power purchase costs.

Nevertheless, the integrated electricity utility often has a monopoly and is a majority electricity provider in the country. Any disruptions to its operations will affect Vietnam's entire energy value chain. As a result, the Government has a strong incentive to extend extraordinary support to the entities if needed. Therefore, we expect the presence of other entities that can step in to produce power if EVN is in financial distress.

Country	Companies	Credit rating	Notes
Vietnam	EVN	BB (by Fitch)	Similar to the sovereign rating
Thailand	EGAT	BBB+ (by Fitch)	Similar to the sovereign rating
Korea	KEPCO	AA- (by S&P) AA- (by Fitch)	Similar to the sovereign rating
India	NTPC	BBB- (by Fitch)	Similar to the sovereign rating
Japan	TEPCO	BB+ (by S&P)	Similar to the sovereign rating
Singapore	SP	AA- (by Fitch) AA+ (by S&P) Aa1 (by Moody's)	Similar to the sovereign rating

Sources: FiinRatings compiles from S&P Global Ratings, Fitch, and Moody's



3. Key Issues from Legal Perspective

In this section, we present some questions and answers to illustrate important issues that affect the energy sector before and after the PDP8. These issues may have direct or indirect implications for the financing plan and cash flow of the energy project until it reaches its financial close. Therefore, these issues help the discussion of bankability (regarding risk allocation) between the project company/sponsor and lenders for the energy project.

3.1. Planning and licensing

Question: Please clarify and share further insights why no offshore wind projects are named in the PDP8 while the PDP8's vision for offshore wind development up to 2050 is significantly recognized.

Answer: The PDP8 has indeed paved a comprehensive and transparent way for offshore wind development up to 2050. However, offshore wind development is more than just up to the PDP8. In fact, under the current Planning Law, PDP8 is only the national sectorial master plan, which is a level below the three national master plans. Accordingly, any project under the PDP8, including offshore wind, shall also be first subject to the following national master plans:

- (i) Resolution No. 81/2023/QH15 adopted on 9 January 2023 by the National Assembly on the national master plan for 2021 – 2030, with a vision to 2050.
- (ii) The national marine spatial plan for 2021-2030 (Marine Spatial Plan), with a vision to 2050, is still in the drafting and consultation process. Hence, offshore wind developers still have to wait for the issuance of the Marine Spatial Plan, which might take a few more months.
- (iii) Resolution No. 39/2021/QH15 adopted on 13 November 2021 by the National Assembly on the national plan of land use for the period of 2021 – 2030, with a vision to 2050 ("**Land Use Plan**"). The Land Use Plan is essential for onshore power developers.

Besides these master plans, offshore wind projects also need to comply with other legal mechanisms and regulations related to environmental protection, grid connection, land acquisition and compensation, etc. Therefore, it is essential for offshore wind developers to have a clear and transparent legal framework that supports their investment and operation in Vietnam.

Question: What are key legal considerations in respect of the development and implementation of the rooftop solar electricity system?

Answer: One of the key components of PDP8 is to promote rooftop solar power, especially for self-generation and self-consumption purposes. The development of rooftop solar in Vietnam can be supported by the legal concept of "surface rights" (in Vietnamese: "*quyền bề mặt*"), which is defined in the Civil Code as the rights of a person to use the land, water surface, space above or below the ground that belongs to another person for construction, planting or cultivation purposes. Therefore, surface rights can be considered a legal basis for recognizing the ownership of rooftop solar systems and facilitating their financing and development.

The development of rooftop solar electricity systems in Vietnam has faced some obstacles and inconsistencies due to the lack of clear guidance and coordination among different authorities. For example, on 22 November 2020, the MOIT issued an official letter No. 7088/BCT-DL to clarify some issues related to rooftop solar permits/authorizations ("**OL 7088**"). However, OL 7088 only reaffirmed the existing legal framework on surface rights and construction regulations. Previously, this was also addressed by the Vietnam Fire and Rescue Police Department under the Ministry of Police in official letter No. 3288/C07-P4 dated 8 September 2020. Despite these efforts, some provinces still have difficulties and challenges in respect of construction permits and/or written approval of acceptance for fire prevention and fighting, and recognition of ownership of the rooftop solar electricity system. These problems may persist even after the issuance of PDP8, which strongly supports the development of rooftop solar, especially self-produced and self-consumption solar PV.

Therefore, it is necessary and urgent for the Government to provide a clear and consistent direction for the implementation of the rooftop solar electricity system, especially in terms of relevant permits,

and the recognition of ownership and mortgage of the rooftop solar electricity system. This would be consistent with the first policy and legal solutions as stated in section VI.3 of the PDP8.

3.2. Power purchase for renewable energy

Question: *What is to expect in terms of PPA models for renewable energy projects with EVN?*

Answer: The development of renewable energy projects in Vietnam faces several challenges, especially regarding the PPAs with EVN, the state-owned monopoly buyer. The current PPA models for different types of renewable energy projects, such as wind, solar, biomass, and small hydro, are mandatory and offer limited room for negotiation. They also impose significant risks on the project developers, such as curtailment risk, force majeure risk, and dispute resolution risk.

From the sponsors' perspectives, the current PPA models have low bankability, making it difficult for project developers to raise funds and capital. The fixed term of the PPAs is 20 years for most projects, except rooftop solar, which is subject to negotiation, from the date of commercial operation. After that, the parties may agree to extend the term or sign a new PPA under the existing regulations. However, any additional clauses or annexes to the PPA models may be deemed void by the competent authorities or courts due to the issue of EVN's authorization.

Question: *What is to expect in terms of DPPA?*

Answer: The DPPA mechanism is a new way for renewable energy generators to sell electricity directly to large-scale buyers in Vietnam. One of the policy and legal solutions proposed by the PDP8 is to issue a pilot scheme for the DPPA mechanism in accordance with the Electricity Law and the roadmap to implement the competitive power market. The draft DPPA regulation is still under consideration by the Prime Minister, who confirmed that it would be issued soon at the expanded G7 Summit in Japan on 19 May 2023.

The MOIT has prepared several draft regulations on the DPPA pilot scheme since 2020, the most recent one being released in May 2022. The May 2022 Draft Decision introduces a contract for difference (CfD) or virtual PPA model, where generators and off-takers agree on a strike price and settle the difference with the spot price. The off taker must commit to purchasing at least 80% of the total power that it would have otherwise purchased from EVN within a given year.

Therefore, for projects under development that hope to enter the DPPA pilot scheme, financing will depend on the final issuance of the DPPA regulation and the tariff calculation methods and terms.

3.3 Review of signed PPAs by EVN

Question: *Please share updates regarding the review of the signed PPAs by EVN.*

Answer: The renewable energy market was shocked by EVN's official letter No. 4024/EPTC-KDMD dated 21 June 2022 ("**OL 4024**"), which was sent to investors of power plants (i.e., project companies) listed in Appendix 2 of OL 4024. OL 4024 stated that EVN had been reviewing the signed PPAs for compliance with Vietnamese laws since the end of June 2022. The review was based on the official letter No. 31/DTDLD-GP dated 15 June 2022 from the Electricity Regulatory Authority of Vietnam ("**ERAV**") to EVN/EPTC, which required EVN to terminate any signed PPA of any projects that violated the Planning Law, the Land Law, the Electricity Law, or any other laws of Vietnam.

The situation escalated quickly when OL 4024 gave signals that EVN would terminate any signed PPA if there was any non-compliance. This caused a lot of concern among lenders, especially those foreign lenders. However, two days later, on 23 June 2022, EVN/EPTC issued a revised letter No. 4077/EPTC-KDMD to retract and delete the termination wording from OL 4024. EVN is still reviewing the signed PPAs under ERAV's direction, and we have not received any official update from EVN or other relevant authorities on this matter.

It is interesting to note that by law, any disputes arising from the PPA between EVN and a project company are subject to the jurisdiction of the ERAV, which is the dispute resolution body for the electricity market. However, given the current shortage of power in the Northern region, such a PPA review would likely keep going for a few more months, and EVN might use the non-compliance issues of project companies as bargains to revise the agreed tariff.

3.4. On-take and off-take for LNG power projects

Question: Please share key issues in relation to the on-take and off-take matters for LNG power projects.

Answer: Without a doubt, LNG power projects will play a major role in the power market of Vietnam in the future. However, to succeed, pioneer developers will need heavy guidance and support from the authorities, especially in relation to the matter of on-take and off-take for LNG power projects. Still, we see that the future of LNG power might be quite both challenging and still promising, especially in relation to matters of on-take and off-take because of the following:

- (i) EVN has been the only buyer of electricity from power plant projects until now. However, according to the Vietnam competitive power market roadmap, the final phase of power market liberalization, the competitive retail market, will be fully functional from 2023 onwards. This will undoubtedly create new opportunities for LNG-to-power business models in the future.
- (ii) Given the EVN unique position in the market and the synchronous relationship of project components in a gas-to-energy project, the template PPA under Annex 3 of Circular No. 57/2020/TT-BCT of the MOIT dated 31 December 2020 ("**Circular 57**") still has a few following major gaps to be acceptable for non-recourse financing:
 - no take or pay obligation on EVN nor any deemed commissioning and deemed dispatch provisions.
 - potential curtailment risk if EVN delays the development of sufficient transmission grids to receive the power from LNG power plants (e.g. due to a lack of funding), which normally be mitigated with take or pay provisions in the PPA; and
 - take or pay obligation in an LNG-to-power PPA also needs to be carefully tailored to address the logistical issues presented by the timing of shipments and the storage limitations of LNG.
- (iii) Also, these gaps would create difficulties and obstacles for all parties in negotiating the gas sale and purchase agreement (GSPA), gas supply agreement (GSA), gas transportation agreement (GTA), and the PPA, affecting the efficiency and progress of the whole gas to energy project chain. Hence, it is critical that regulations or guidelines relating to the partial or full off-take of gas extracted upstream of LNG power plants shall be aligned, specific and clearly defined.

Moreover, the legal framework for LNG business is sparse and immature. Besides the general laws that govern foreign investment, Decree No. 87/2018/ND-CP of the Government dated 15 June 2018, as amended by Decree No. 17/2020/ND-CP of the Government dated 5 February 2020,

("Decree 87"), is the main source of regulation for gas business. The requirements for trading, importing, and transporting LNG in Decree 87 are very broad. The current regulation does not address the issue of using floating storage and/or regasification units or facilities (i.e., FSRU, FSU) in LNG operations. Therefore, it is uncertain how the Government will oversee and regulate such facilities in the future.

3.5. Private investment for grid transmission

Question: *Please share how the first private 500 kV transformer substation and 500 kV transmission line by Trung Nam has recovered its investment costs.*

Answer: The Thuan Nam 500 kV transformer substation and the Thuan Nam – Vinh Tan 500 kV transmission line started commercial operation in October 2020. Trung Nam reported that the total investment cost was nearly VND 2 trillion (USD 84.48 million), which the revenue would recover from the signed PPA and the full operation of its Thuan Nam 450 MW solar power plant in Ninh Thuan.

However, the Thuan Nam 450 MW solar power plant faced a major setback when EVN reduced its capacity by 172.12 MW from 1 September 2022. EVN claimed that the plant exceeded the allowed 2,000 MW solar power limit for Ninh Thuan province and had no applicable tariff mechanism. This meant that the plant could only operate at 60% of its design capacity and could not recover its investment costs for the Thuan Nam 500 kV transformer substation and the Thuan Nam – Vinh Tan 500 kV transmission line through the signed PPA of Thuan Nam power plant.

This case raises some legal issues for the implementation of PDP8 regarding the involvement of the private sector in grid transmission. These issues include: (i) the modes of participation; (ii) the compensation for the private sector's investment; and (iii) the dispute resolution mechanisms, if any.

3.6. Non-government guaranteed foreign loan management

Question: *What are the common issues in relation to foreign loan registration of power project companies?*

Answer: A power project company can obtain a foreign loan to fund or refinance its project costs, provided that such loans meet the criteria for non-government guaranteed foreign loans. The following are two common practical issues that we have observed in relation to foreign loan registration of power project companies:

- (i) For financing project costs: some project companies, the sponsors or the foreign shareholders of the project companies may pay the construction costs to EPC contractors on behalf of the project companies or set off these costs against their equity contribution or other contractual forms. Therefore, when financing project costs, a portion of the foreign loan or sometimes, the entire loan amount will not be disbursed into the foreign loan account in Vietnam of the project companies as the borrowers, this will require additional justifications and documentation.
- (ii) For refinancing project costs: some project companies may obtain short-term loans on a revolving per annum basis from the sponsors or foreign shareholders during the development phase, and sometimes, the borrowing costs issue may not be addressed until the project companies seek long-term finance after COD.

Therefore, project companies/sponsors should communicate and cooperate with lenders and their legal advisors before finalizing and signing the finance documents to ensure a smooth foreign loan registration process. With the introduction of PDP8 and hopefully, the upcoming changes of regulations on the conditions for non-government guaranteed foreign loans, domestic and foreign lenders may have more confidence in addressing the bankability issues when considering financing or lending to power project companies in Vietnam.

3.7. Granting security of the power plant in favor of lenders

Question: Please share key issues in relation to the power plant itself as the secured asset for indebtedness obligations of the project company.

Answer: A power plant is the most important and expensive constructed asset that belongs to the land of the project company, no matter what kind of energy it uses. The project company, its shareholders, and its sponsors have followed a long legal process by law to build the plant from scratch. The legal process in relation to the creation (not yet registration) of the power plant as an asset attached to land has some main steps as follows:

- (i) The project company does the necessary procedures to get land use rights for the project: land lease agreement and land use right certificate;
- (ii) The project company prepares and hires construction contractors to make technical design and gets approval for technical design;
- (iii) The project company gets a construction permit, hires an EPC contractor, and signs an EPC contract for building the power plant;
- (iv) After finishing the construction, the project company invites the competent authority to check and accept the built power plant; and
- (v) The project company starts the commercial operation of the power plant.

According to the Civil Code, the developer who creates an asset attached to land can register them under the Land Law. However, the reality of registering ownership of a power plant as an asset attached to land is often different from the legal theory. Many project companies only have land use right certificates recognizing a list of constructed facilities on land (such as pillars, substations, offices, etc.) instead of the whole power plant. This remains a challenge for the project company when it comes to securing the assets of the project for the lenders. Hopefully, this long-standing problem can be addressed in the expected revisions of the Land Law and during the implementation of PDP8. These legal developments could enhance the confidence of domestic and foreign lenders in financing power projects in Vietnam in a holistic manner.

Introduction to FiinRatings and Its Credit Rating Services

FiinRatings Joint Stock Company, a member of FiinGroup and a technical collaboration partner with S&P Global Ratings, is a local licensed Credit Rating Agency in Vietnam. FiinRatings provides credit ratings and related services to issuers, creditors, and investors in the Vietnam credit market. FiinRatings is also Vietnam's first green bonds approved verifier, in accordance with the green bond international standard by the Climate Bonds Initiative.

Our rating and related services are described below:

1. **Issuer Credit Rating:** an independent opinion about overall creditworthiness and financial strength of an issuer. It can be used as an information tool for capital markets participants and your organization's counterparties-banks, clients, suppliers, joint-venture partners, brokers, Government agencies-even landlords.
2. **Issue Credit Rating:** a forward-looking opinion of an obligor's creditworthiness: A Bond Credit Rating takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation. The opinion reflects our view of the obligor's capacity and willingness to meet its financial commitments as they come due and may assess terms, such as collateral security and subordination, which could affect ultimate payment in the event of default.
3. **Credit Assessment:** Leveraging our corporate database for all registered enterprises in Vietnam and our industry benchmarks, we offer several services that support investors, such as Credit Assessment Reports, Credit Monitoring, and Full Credit Rating Reports.
4. **Credit Due Diligence:** FiinRatings conducts thorough assessments of target companies' creditworthiness, financial health, and potential risks, providing critical insights for informed decision-making. We help identify credit-related opportunities and risks associated with the proposed transaction, aiding the M&A activities.
5. **Project Finance Ratings:** Providing forward-looking opinions on relative credit risk on the full cycle of a project finance transaction, considering expected losses associated with contractual payments, default likelihood, and loss severity.
6. **Green Bond Verification:** FiinRatings has been officially approved by the Climate Bonds Initiative (CBI) as the first authorized company in Vietnam. FiinRatings' green bond verification report is used as the basis for CBI to issue green bond certification and support Vietnamese enterprises to access a network of investors around the world.

Introduction to Indochine Counsel and its Finance and Projects Practice

At Indochine Counsel, we offer comprehensive legal services to assist clients navigate and execute the complexities of project development, financing and restructuring in Vietnam. Our experienced team of project development, financing and restructuring lawyers provides strategic advice and practical solutions to bring in excellent and timely results while ensuring compliance with local laws and regulations.

Our main legal services in relation to projects, financing and restructuring include:

1. **Full project finance cycle:** Acting as the local counsel, either of the lenders or of the sponsor/borrower, we involve, work closely with the lead counsel to assist clients from initial structuring and/or pre-project development towards financial close, throughout operation/servicing and thereafter until exit financing.
2. **Legal due diligence for financing:** Our team performs due diligence on key / red flag legal issues addressing to lenders / financial parties in relation to the establishment, authorizations/permits/licenses, status of land use rights, project contracts, and financial obligations etc. of project company, and accordingly, identifies and proposes critical condition of precedents and condition of subsequent for financing.
3. **Legal review, drafting and negotiating of financing documents:** Our team assists with lenders or sponsors/borrowers to ensure their best interests under financing documents while considering to local law issues and necessary/regulatory filing requirements, especially regarding matters of foreign exchange control and on secured transactions. We also can provide the local law inputs into inter-creditor agreement (ICA) and/or sponsor support agreement (SSA) for any transaction, regardless of its complexity.
4. **Security documents and other forms of guarantee:** Either as a drafter of Vietnamese security documents, and/or as a commentator of the foreign law governed security documents, including various forms of guarantees, our team is capable to provide insights and practical approaches from both Vietnam law perspectives and common practice of financing in the market.
5. **Restructuring and special situations:** If a project or a loan faces a distress, our team is capable to assist and work closely with the lead counsel of the lenders, or the coming sponsor, or the outgoing sponsor, or the target project company, under high pressure of urgency, efficiency, and accuracy deliverables.
6. **Issuing legal opinion:** As the Vietnamese counsel, we can issue legal opinion addressing to financial parties on validity and enforceability of Vietnamese law governed transaction documents and/or on capacity of Vietnamese obligors under certain transaction documents. Our team is happy to also consider special requests and accommodate within our capacity and regulatory permission.

At Indochine Counsel, we blend our in-depth knowledge of Vietnamese laws with a client-focused approach, customizing our services to meet each client's unique needs. With our assistance, clients can confidently navigate any legal issue in relation to project development, operation and financing or restructuring while ensuring compliance and maximizing the success of their projects or financing in Vietnam.

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The contributions of FiinRatings and Indochine Counsel are in the form of industry-specific market data and analysis and legal proficiency and guidance, respectively. Their expertise has ensured a comprehensive and accurate representation of Vietnam's project development, financing, and restructuring landscape.

However, it's important to clarify the nature of the relationship between these two entities. FiinRatings and Indochine Counsel enjoy a long-standing professional collaboration marked by mutual trust and shared business goals. Yet, it is essential to note that this collaboration does not denote an exclusive tie between the two.

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By presenting this commentary report, FiinRatings and Indochine Counsel continue their dedication to providing comprehensive and reliable insights into the development and financing of energy projects in Vietnam.

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About FiinGroup

As a Vietnam's leader in financial data & analytics, we commit to provide meaningful information, insights and technologies that drive the capital markets.

Established in March 2008, FiinGroup has become a market leader in providing financial data, business information, industry research, credit ratings and other data-driven analytics services in Vietnam. We are proud to be an FDI organization cooperating with various established partners globally such as Nikkei (the holding company of Financial Times), QUICK Corp (Japan), Asian Development Bank (ADB), and most recently S&P Global Ratings, the leading credit rating agency in the world. FiinGroup is serving more than 1,000 local and foreign financial institutions and corporations through our fintech platform as a service (PaaS), annual packages and on-call services.

With the mission to “Enlighten the Market”, FiinGroup strives to create a new standard of financial data analysis for the Vietnam market. We take a shared responsibility to do business in ways that respect, protect and benefit our customers, partners, employees, suppliers, communities, and Vietnam capital market. We co-create innovative data and business analytic solutions to bring more values and offer more opportunities to enterprises and people around the world, now and for future generations.



About Indochine Counsel

Established in October 2006, Indochine Counsel is a leading commercial law firm in Vietnam. Offering services throughout Vietnam, Indochine Counsel is ideally positioned to assist international investors and foreign firms to navigate the legal landscape in one of Asia's most dynamic and exciting countries. We also take pride in our services offered to domestic clients in searching for opportunities abroad. With over 45 lawyers and staff in two offices, Ho Chi Minh City and Hanoi, Indochine Counsel offers expertise in a dozen practice areas and provides assistance throughout the entire life cycle of your business.

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