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Foreign Direct Investment in the Renewable Energy Industry to Meet New Requirements in Vietnam

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ABSTRACT: This article provides a comprehensive, multi-dimensional analysis of foreign direct investment (FDI) flows into Vietnam's renewable energy industry during the historic transition period from 2016 to 2025. Based on primary data from legal documents, statistical reports from state management agencies, and secondary data from international organizations, the study reconstructs the comprehensive picture of the national energy structure transformation process. According to data from the Ministry of Planning and Investment, by the end of 2024, the total registered FDI in this sector had reached approximately US$41.9 billion, accounting for 8.3% of the total FDI nationwide. The study identifies and analyzes the key development stages, while also highlighting the role of trade agreements (EVFTA, CPTPP) and JETP commitments in driving these capital flows. However, the report also clearly identifies serious bottlenecks regarding transmission infrastructure (causing 15-20% capacity reduction), legal dispute risks, and the low rate of technology transfer (only about 20%). From that, the report proposes a system of strategic solutions, including the enactment of a Renewable Energy Law and a set of green FDI criteria to unblock resources.

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DPPA Mechanism, Foreign Direct Investment (FDI), Renewable Energy Law, Power Development Plan VIII, Carbon Credits.

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1. INTRODUCTION

1.1. Macroeconomic context and urgency of energy transition

Over the past decade, Vietnam has affirmed its position as one of the most dynamic economies in the Asia-Pacific region. With an average GDP growth rate maintained at 6-7% before the pandemic and impressive recovery after 2022, Vietnam has become an important link in the global supply chain. The shift of manufacturing centers from China to Southeast Asian countries (the "China + 1" strategy) has brought a series of large multinational corporations such as Samsung, Apple, LG, and more recently LEGO, Foxconn to establish large-scale production facilities in Vietnam.

According to data from the Ministry of Planning and Investment (MPI), by the end of 2024, the total registered FDI in the electricity, gas, and water production and distribution sector (including renewable energy) reached approximately US$41.9 billion, accounting for 8.3% of the total registered FDI in Vietnam. This increase comes not only from domestic demand but is also driven by international organizations such as IRENA, World Bank, ADB, along with new generation free trade agreements.

The urgency of studying FDI flows into renewable energy stems from the contemporary "dual demand":

First, is the internal demand of the economy to ensure national energy security. The serious power shortage in the Northern region in the summer of 2023 was a wake-up call about the fragility of the power system when dependent on traditional energy sources.

Second, is the exogenous pressure from export markets and international investors. Major markets such as the EU (with the Carbon Border Adjustment Mechanism - CBAM) and the US are erecting green technical barriers, forcing Vietnam to supply enough clean electricity if it wants to maintain its FDI attractiveness.

1.2. Research objectives

This article aims to address the following core objectives:

First, Clarify the scale, structure, and trends of FDI flows into Vietnam's renewable energy industry in the period from 2016 to 2025.

Second, Analyze the impact of important policy instruments (FIT prices, Electricity Law, Power Development Plan VIII, DPPA Decree) on investment decisions.

Third, Identify bottlenecks in technical infrastructure, legal framework, administrative procedures, and dispute risks that are hindering the potential to attract capital.

Fourth, Develop a system of feasible solutions, including perfecting the legal framework with the Renewable Energy Law and green FDI screening criteria sets.

1.3. Research subjects and scope

Research subjects: Foreign direct investment (FDI) flows into the renewable energy industry (wind power, solar power, biomass power).

Time scope: From 2016 (the time of adjusting Power Development Plan VII) to 2025 (the time of completing the legal framework on competitive electricity market and DPPA).

Spatial scope: Entire territory of Vietnam.

1.4. New contributions of the article

This report fills the current research gap by updating data up to 2025, especially in-depth analysis of the impact of Decree 57/2025/ND-CP on the DPPA mechanism. The article also integrates new data on FIT disputes and the current state of technology transfer to provide a more realistic view of the quality of FDI flows.

2. THEORETICAL FRAMEWORK

2.1. Renewable energy and the role of FDI in the renewable energy industry

Renewable energy is energy that can be regenerated or continuously maintained in nature (such as solar, wind, tidal, biomass) and does not deplete over time. For sustainable development, renewable energy plays a key role; it helps reduce dependence on fossil fuels, combat climate change, and ensure long-term energy security.

Renewable energy often requires high technology and large investment capital, so FDI can play a positive role in developing this sector through Governments applying policies to attract FDI into the renewable energy sector such as encouraging investment in solar power plants, wind power... with tax incentives and FIT electricity prices; while expecting FDI enterprises to bring modern technology and advanced governance standards. FDI is seen as a source, especially high-tech FDI, which plays a key role, bringing modern technology and advanced governance standards that will promote productivity and green growth. Developing the renewable energy industry and attracting FDI are two policies that can support each other: FDI provides capital and technology for clean energy, while renewable energy potential increases foreign investment attractiveness to economies.

2.2. OLI Paradigm and its adaptation in the renewable energy industry

The Eclectic OLI Paradigm initiated by Dunning (1979) is the most foundational theoretical framework to explain the origins and behavior of multinational enterprises (MNEs), explaining the motivation for foreign direct investment into economies. Under the pressure of the clean energy era, the three core advantages of this model have evolved significantly:

Ownership Advantage (O): According to Eden and Dai (2010), ownership advantage is not static but changes with the institutional environment. In the renewable energy industry, the "O" advantage is not just capital capacity, but the possession of core technology copyrights (turbines, photovoltaics) and the capacity to operate greenhouse gas inventory systems complying with stringent ESG standards.

Location Advantage (L): Instead of seeking cheap labor, MNEs now locate based on solar radiation potential, wind speed, and especially the quality of climate institutions. IMF (2024) research demonstrates that narrowing the climate policy gap can triple the ratio of green FDI to GDP in emerging markets.

Internalization Advantage (I): To cope with the risk of being subject to high "default emission factors" from the Carbon Border Adjustment Mechanism (CBAM), MNEs tend to internalize control over the entire green supply chain through direct FDI, rather than licensing or franchising, to ensure emissions data transparency (KTG Industrial, 2026).

2.3. Product Life Cycle Theory

Vernon's (1960) Product Life Cycle theory provides a dynamic perspective on the spatial shift of production capacity. For renewable energy equipment, after going through the "New Product" and "Maturity" stages in developed countries, technology enters the "Standardization" stage. At this point, the cost optimization motivation drives FDI flows strongly to developing countries. The boom of the solar panel manufacturing industry in Vietnam—accounting for more than a quarter of US imports in 2022—is precisely a consequence of the standardization cycle combined with supply chain diversification strategies to avoid global geopolitical risks (Ngov et al., 2025).

2.4. Institutional Theory and comprehensive energy transition

2.4.1. Multi-Level Perspective (MLP) and institutional pressures

In the energy transition process, the Multi-Level Perspective (MLP) explains the interaction between three systems: (1) The macro-level landscape (global climate change pressure), (2) The conservative regime (traditional coal power monopoly system), and (3) Niche markets (innovative green technology) (Muhire et al., 2024). Under immense pressure from the landscape level, FDI flows into niche markets act as a "catalyst" breaking the structure of the old fossil fuel regime to reshape the energy system.

This behavior of firms is explained by neo-institutional theory. Wolf (2014) and Carter & Easton (2011) argue that MNEs are forced to build green supply chains to cope with three pressures: coercive pressure (law, CBAM), normative pressure (social ethical standards, ESG standards from investment funds), and mimetic pressure (imitating competitors to maintain competitive advantage).

2.4.2. The shift from FIT to DPPA mechanism

To satisfy new institutional requirements, the policy structure for attracting FDI must also fundamentally change.

Feed-in Tariff (FIT) mechanism: With its nature as state intervention to ensure fixed revenue, FIT historically played a role in triggering large-scale FDI flows in the initial period. However, according to the analysis by Streeck and Thelen (2005), this mechanism potentially carries "high institutional interruption risk," burdening the budget and potentially eroding investor confidence if abruptly changed.

Direct Power Purchase Agreement (DPPA) mechanism: Reflecting market liberalization theory, DPPA dismantles monopoly barriers, allowing renewable energy plants to sign direct power purchase contracts with multinational corporations. According to Mahanakorn Partners (2025), this mechanism provides an internationally recognized legal structure, helping FDI enterprises self-source clean electricity, thereby meeting RE100 commitments and directly avoiding the impact of carbon border taxes.

3. RESEARCH METHODOLOGY

3.1. Data collection process

To ensure reliability and authenticity, the research applies a multi-source data collection process:

Policy data: Original documents from the Government (Power Development Plan VIII, Decree 80/2024/ND-CP, Decree 57/2025/ND-CP, Decision 11/2017/QD-TTg).

Statistical data: Data from the General Statistics Office (GSO), Foreign Investment Agency (FIA - Ministry of Planning and Investment), and reports from IRENA, World Bank.

Specialized data: Operational reports from EVN, A0, and market data from BloombergNEF (BNEF).

3.2. Analysis methods

Using a combination of descriptive statistical methods (to track capital flows) and policy analysis (to assess the impact of FIT and DPPA).

4. RESEARCH RESULTS

4.1. Policy and institutional framework in Vietnam

The period 2016-2025 witnessed a fundamental shift in Vietnam's energy management thinking. These changes have directly affected the operations of the renewable energy industry as well as FDI flows into Vietnam's renewable energy sector.

Vietnam has issued many incentives to encourage investment in the renewable energy sector. Renewable energy projects are often exempted or have reduced corporate income tax for many years, exempted from import tax on equipment, exempted from land tax... In addition, the feed-in tariff (FIT) policy for solar and wind power has created revenue reliability for investors. Other supports include preferential credit policies (increasing loan ratios), creating distribution grids for renewable sources... All aim to build a legal corridor according to international standards and expand support mechanisms for foreign investors in the renewable energy industry.

At the COP26 Conference in 2021, Vietnam committed to achieving net-zero emissions by 2050. Resolution 55/NQ-TW (2020) of the Politburo also oriented sustainable energy development towards 2045. On that basis, Vietnam has adjusted its energy strategy, setting a target for the share of renewable energy in total primary energy supply to reach 15-20% by 2030 and 25-30% by 2050. This international commitment forces Vietnam to promote attraction of capital and clean technology, while gradually reducing fossil fuel exploitation (coal, oil and gas).

In the context of climate change and fossil fuel shortages, to meet new requirements for sustainable development, energy security has become a strategic objective alongside economic growth. Power Development Plan VIII determines the need to firmly ensure national energy security associated with modernizing production and the power grid, while promoting green energy transition and reducing emissions. This sets a requirement to attract higher quality FDI—prioritizing clean technology projects—to improve resource use efficiency and contribute to sustainable development. In other words, energy security and sustainable development orient new FDI policy, requiring mobilization of large FDI capital for renewable energy and related technologies.

4.2. Results of FDI flows into the renewable energy industry

The period 2016-2025 witnessed a remarkable transformation of Vietnam's renewable energy industry, from almost negligible to becoming one of the leading clean energy markets in Southeast Asia. The main driver for this boom came from the Government's incentive policies, attracting a large amount of domestic and foreign private investment.

According to the Institute for Energy Economics and Financial Analysis (IEEFA), from 2018 to 2023, Vietnam increased its solar and wind power capacity from nearly zero to over 21,000 MW. Also according to IEEFA, the capital structure for this boom mainly came from domestic resources and foreign joint ventures, with nearly 58% being capital from purely domestic investors and 27% from domestic-foreign joint ventures. The total committed FDI in this sector was very large, however, the overall picture is not just a story of growth.

Towards the end of the period, capital flows faced unprecedented challenges. An open letter from 28 foreign and Vietnamese investors (including Adani Green Energy, Dragon Capital, ACEN) in March 2025 warned about the risk of affecting more than US$13 billion in investment capital (with the FDI portion alone being US$4 billion for nearly 4 GW of capacity) due to retroactive policy changes. This figure shows the scale and level of risk that foreign capital flows are facing when entering a new phase.

4.2.1. Impact of policies on FDI flows

The fluctuations of FDI flows are closely linked to changes in Government policies.

Table 1: Statistics on FDI flows and policy events in the renewable energy industry (2016-2025)

Year	Total National FDI (Billion USD)	FDI into Renewable Energy Sector (Million USD/Billion USD)	Policy Events & Market Trends
2016	15.8	2.18 million USD (newly licensed YTD)	Adjusted Power Development Plan VII. Market still nascent.
2017	17.5	8.4 billion USD (Registered)	Large coal power BOT projects. Issuance of Decision 11/2017 (Solar FIT).
2018	19.1	2.3 billion USD (Registered)	Solar Farm investment boom. Hanwha, Sembcorp participate.
2019	20.38	4.3 billion USD (Registered)	Vietnam becomes regional renewable energy hotspot.
2020	19.98	5.1 billion USD (Registered)	FIT 2 rush. Bac Lieu LNG project licensed.
2021	19.74	1.54 billion USD (Disbursed)	Solar FIT expires. Disputes over 173 projects begin to arise.
2022	22.4	2.26 billion USD (Registered)	Policy lull awaiting PDP8. M&A trend for operational projects.
2023	23.18	2.37 billion USD (Registered)	PDP8 approved. Northern power shortage crisis.
2024	25.35	41.93 billion USD (Cumulative existing)	Issuance of Decree 80 on DPPA. Record disbursed capital.
2025	27.62	914.9 million USD (Disbursed)	Amended Electricity Law, Decree 57/2025 perfecting DPPA.

Source: Author's synthesis

To clearly see the fluctuations of FDI flows into Vietnam's renewable energy industry, this period can be divided into the following key policy milestones:

a. Boom period thanks to FIT mechanism (2017-2021)

Decisions 11/2017/QD-TTg (FIT for solar power) and 39/2018/QD-TTg (FIT for wind power) created a strong push. The preferential price (9.35 US cents/kWh for floating and ground-mounted solar, higher than market price) and the 20-year power purchase commitment from Vietnam Electricity (EVN) created an investment "fever".

As a result, capital flows, including FDI, poured in massively. From 2019-2021, Vietnam witnessed the fastest solar power development rate in Asia. In 2020 alone, at times an average of 1,000 MW of solar power was connected to the grid each month. Foreign investors such as Mainstream Renewable Power (Ireland), EDP Renewables (Portugal), Super Energy (Thailand), AC Energy (Philippines) quickly participated through cooperation deals or share acquisitions.

b. Freeze and crisis of confidence (2021-2023)

The period when FITs expired successively (solar power end of 2020, wind power end of 2021) but no new pricing mechanism was issued in time. A series of "transitional projects" fell into "suspension" due to inability to negotiate electricity selling prices with EVN. According to the Vietnam Renewable Energy Association, more than 84 projects with a total capacity of over 4,000 MW were stuck.

During this period, the market was almost "frozen". Large foreign investors such as Orsted (Denmark), Equinor (Norway), Enel (Italy) withdrew to seek markets with more predictable investment environments. Investor confidence was severely affected.

c. Efforts to restart with a new legal framework (2023-2025)

This period marked the birth and application of many new policies:

First, Power Development Plan VIII (PDP8) approved in May 2023 and adjusted with increased targets in April 2025, PDP8 set very high ambitions: 73 GW of solar power and 38 GW of wind power (including offshore wind) by 2030. This figure shows huge investment potential, but also a significant challenge.

Second, Amended Electricity Law (November 2024), For the first time allowing foreign investors to participate in offshore wind power projects.

Third, DPPA Mechanism (Decree 58/2025/ND-CP) issued in July 2024, allowing large electricity users to buy electricity directly from renewable energy developers via private lines or through the EVN grid. This is considered a revolution, breaking EVN's monopoly, increasing project feasibility, and meeting the needs of multinational corporations with RE100 commitments.

These policy changes have created intertwined impacts, both positive and negative, on FDI activities in Vietnam's renewable energy industry. DPPA began to re-attract the interest of strategic investors. Typically, LEGO (Denmark) operated its factory in Binh Duong using renewable energy from rooftop solar and battery storage. Large investment plans were announced such as the US$4.6 billion offshore wind project by PNE (Germany) in Binh Dinh. Alongside these positive signals, a major policy shock occurred. From late 2023 and especially in 2025, the Government directed a review of electricity purchase prices for 173 solar and wind power projects due to violations during the approval process. This led to the risk of reducing project revenues by 25% to 46% and requiring recovery of amounts allegedly overpaid. EVN also began delaying payments or making partial payments to renewable energy plants.

It is clear that the FIT policy had the most immediate and powerful "push" effect, creating a capital boom. Conversely, post-FIT policies, despite progressive points like DPPA, created uncertainty and "freeze" due to lack of guidance and especially recent retroactive decisions. This move caused a major confidence shock, prompting investors like Adani, Dragon Capital to warn about the risk of "erasing equity" and systemic financial instability.

4.2.2. FDI investors and shifting trends

Based on reports and typical deals, the leading investors in Vietnam in the 2016-2025 period include:

Thailand: Prominent with Super Energy, one of the most active foreign investors, participating in many solar and wind power projects.

Philippines: AC Energy (under Ayala Group) is another major name, present through many M&A deals and project investments.

Singapore: A financial hub and destination for many investment funds and companies establishing subsidiaries to invest in the Vietnamese market.

Taiwan (China): Strong investment in wind power, especially offshore wind, leveraging renewable energy development experience from regional projects.

Korea, Japan: Large energy conglomerates often participate as strategic investors or EPC (engineering, procurement, and construction) partners, providing technology and capital.

Europe (Denmark, Germany, Portugal, Ireland...): Focus on the upstream, high-tech segment, with names like Ørsted, PNE (pioneers in offshore wind), Mainstream Renewable Power, EDP Renewables. Particularly, LEGO (Denmark) is a new model of direct investment in manufacturing linked to renewable energy consumption.

China/India: Adani (India) is one of the large investors affected by retroactive policies.

These results show the trend of shifting investment capital proportions according to specific periods, also greatly influenced by changes in Vietnam's policies.

Early period (2016-2021): Capital concentrated from Asian investors (Thailand, Philippines, Korea, Japan, Taiwan), often through joint ventures with domestic partners or independently developing onshore solar and wind projects. This capital flow was sensitive to FIT policies and took good advantage of these incentives.

Late period (2022-2025): A clear shift trend emerged. While Asian investors maintained operations, capital flows from Europe and international investment funds (such as Dragon Capital) began to account for a more significant proportion in new and complex areas. Their interest focused on:

(1) Offshore wind power: This is a sector requiring large capital, high technology, and project management experience where European investors have strengths. The PNE project is evidence.

(2) DPPA model and green investment: Manufacturing corporations with ESG commitments from the US, Europe, Japan, Korea drive demand for clean energy, creating a new market for independent developers and attracting higher quality FDI flows linked to global supply chains.

4.2.3. Internal industry structure and capital flow shift

Within the renewable energy sector, solar power was the strongest FDI-attracting field in the early period, especially solar farms. By the end of 2024, Vietnam had 45 solar power projects with foreign investment. Onshore wind power also attracted a large amount of foreign capital with 13 projects recorded by the end of 2024. Capital flows into this sub-sector were more sustainable thanks to good capacity factors and relative stability compared to solar power.

Meanwhile, offshore wind power is a new bright spot attracting international investor attention, with 12 projects having foreign participation in the early stage. These projects typically have very large investment scales, up to billions of USD.

Biomass/Waste-to-energy remains quite new and modest in FDI, although DPPA has expanded the scope of application for waste-to-energy projects.

The trend of shifting capital flows from solar power to offshore wind power was very clear in the latter part of the decade (2022-2025). The main reasons are:

First, Saturation and gridlock in the solar power segment: The solar power market had overheated, leading to grid overload, capacity curtailment, and subsequently retroactive policy issues, causing new capital flows into this field to stall.

Second, Potential and incentives from PDP8: Power Development Plan VIII sets very high targets for offshore wind power, opening a new development space. The amended Electricity Law allows foreign investors to participate, creating a legal corridor for this capital flow.

Third, Seeking new profits and stability: Large investors, especially from Europe, seek large-scale, long-term projects with attractive profit potential and less affected by the fierce competition of the domestic solar market. Offshore wind power, although higher risk, is expected to bring stable cash flow and be a "playground" with fewer competitors.

4.3. Evaluation of FDI results in the renewable energy industry in Vietnam for the period 2016-2025

Looking back at the 2016-2025 journey, FDI flows played a formative role, helping Vietnam possess a leading renewable energy system in Southeast Asia.

4.3.1. Regarding sustainability

The sustainability of FDI flows into renewable energy in Vietnam during the 2016-2025 period shows a sine wave with extremely large amplitude, reflecting the uncertainty of the institutional environment.

During the FIT period (2017-2021), FDI grew "hot", heavily dependent on subsidies, lacking synchronization with grid infrastructure and EVN's financial capacity. Sustainability was disrupted by a serious imbalance between the development speed of generation sources and the carrying capacity of the national grid infrastructure. Solar power projects with construction times of only 6 to 12 months easily outpaced the construction speed of transmission lines, which typically take 3 to 5 years. This created a subsequent crisis of confidence and finance.

Entering the post-FIT period (2022-2025), the sustainability of FDI flows was not only threatened by technical factors but also faced a serious institutional crisis. The absence of a timely transitional pricing mechanism after FIT policies expired caused the market to almost fall into a "frozen" state. During this period, retroactive administrative decisions have been destroying the foundation of sustainability, which is investor confidence in the stability of the legal framework.

4.3.2. Regarding efficiency

In terms of implementing national energy strategy, the extraordinary efficiency of private capital and FDI in realizing capacity expansion goals cannot be denied. Efficiency in attracting capital and developing capacity proved extremely effective in the early period. FDI helped Vietnam achieve the goal of developing renewable energy capacity spectacularly.

However, efficiency in terms of system operation and finance is poor. The massive but unplanned development regarding overall grid infrastructure and counterpart funds led to overload, capacity curtailment, and major losses for EVN (over US$1 billion in 2023). FDI projects are also facing the risk of "green bankruptcy" due to policy changes.

4.3.3. Some limitations

Foreign direct investment in renewable energy technology in Vietnam could be more positive if the following limitations are overcome.

First, Lack of synchronization between source development policy and infrastructure: The overly generous FIT policy created an investment "fever", but the grid infrastructure and financial capacity of the sole power purchaser (EVN) could not keep up, leading to subsequent crisis.

Second, Policy risk and unpredictability: Abrupt policy changes with retroactive effect are a "red line" for international investors. This creates a bad precedent, erodes confidence, and makes attracting FDI for large-scale, long-term projects like offshore wind power more difficult.

Third, Institutional "bottlenecks" and green capital absorption capacity: Lack of a synchronous legal framework, especially national green classification criteria, causes high-quality credit and FDI flows to face many barriers. The ability of enterprises and the banking system to access international standards (ESG, IFC Performance Standards) remains weak.

Fourth, Project bankability limitations: Vietnam's standard power purchase agreements (PPAs) have many points unfriendly to investors and international financial institutions, such as the "Take and Pay" mechanism (only paying when EVN receives electricity) instead of "Take or Pay" (commitment to purchase whether electricity is received or not), and difficulties in mortgaging assets formed from loans for foreign lenders.

5. CONCLUSION AND RECOMMENDATIONS

The period 2016-2025 was a volatile decade rich in lessons for FDI flows into renewable energy in Vietnam. The boom thanks to FIT policies put Vietnam on the world clean energy map, attracting diverse international investors. However, that "hot" and unsustainable development led to a serious confidence crisis when entering a new phase. Current policies (PDP8, DPPA) are heading in the right direction to build a more competitive and transparent energy market, but the scars from retroactive administrative decisions and delays in perfecting institutions are the biggest challenges. For FDI flows to be truly sustainable and effective in the future, Vietnam needs to prioritize restoring investor confidence through a stable, consistent, and predictable legal framework, while thoroughly addressing grid infrastructure bottlenecks and the system's financial capacity.

To realize the aspiration to develop from 183 GW to 236 GW of total system capacity by 2030 according to Decision 768/QD-TTg, Vietnam estimates it needs to mobilize up to US$136 billion for the next decade, and this figure could reach nearly US$570 billion for the vision to 2050. This huge capital demand requires the inevitable accompaniment of international financial flows and transition finance mechanisms. The article proposes some key strategic recommendations as follows:

First, Perfect the legal framework and Codify into Law: Soon promulgate the Renewable Energy Law to create a solid legal corridor, replacing constantly changing sub-law Decisions and Decrees. Resolve pending disputes definitively based on the principle of non-retroactivity to restore investor confidence.

Second, Enhance green FDI criteria and technology transfer: Promulgate a set of Green FDI Criteria to screen and prioritize projects using modern technology, committing to technology transfer, and having high localization rates. Encourage supply chain linkages between FDI enterprises and domestic enterprises through tax incentives.

Third, Perfect and Effectively Implement the DPPA Mechanism: The Ministry of Industry and Trade should soon issue detailed technical circulars guiding Decree 57/2025/ND-CP.

Fourth, Socialize investment in grid and storage: Mobilize resources from the private sector and international commitments (JETP, AZEC) to invest in smart grids and battery energy storage systems (BESS) to minimize capacity curtailment.

Fifth, Develop the green financial market: Build a legal framework for the green bond market and green credit, helping renewable energy projects access low-cost capital.

REFERENCES

1. Ministry of Industry and Trade. (2024). *Policy consultation proceedings: Development of competitive electricity market and direct power purchase agreement (DPPA) mechanism*. Vietnam Energy Partnership Group.
2. Government of the Socialist Republic of Vietnam. (2024). *Decree regulating the direct power purchase agreement mechanism between renewable energy generation units and large electricity customers* (Decree No. 58/2024/ND-CP). Government Portal. https://vanban.chinhphu.vn/?pageid=27160&docid=208550
3. Government of the Socialist Republic of Vietnam. (2025). *Decree regulating the direct power purchase agreement mechanism between renewable energy generation units and large electricity customers* (Decree No. 57/2025/ND-CP). National Database on Legal Documents. https://vbpl.vn/TW/Pages/vbpq-van-ban-goc.aspx?ItemID=176043
4. Cohen, W. M., & Levinthal, D. A. (1989). Innovation and learning: The two faces of R&D. *The Economic Journal*, *99*(397), 569-596.
5. Dunning, J. H. (1979). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, *11*(1), 9-31.
6. Eden, L., & Dai, L. (2010). Rethinking the O in Dunning's OLI/Eclectic Paradigm. *Multinational Business Review*, *18*(2), 13-34.
7. Institute for Energy Economics and Financial Analysis. (2024, February). *Vietnam's renewable energy landscape: A foreign investor's perspective*. https://ieefa.org/resources/vietnams-renewable-energy-landscape-foreign-investors-perspective
8. Institute for Energy Economics and Financial Analysis. (2024, April). *Vietnam's solar and wind power boom: Who owns the assets?*. https://ieefa.org/resources/vietnams-solar-and-wind-power-boom-who-owns-assets

9. Institute for Energy Economics and Financial Analysis. (2022, May). *Vietnam's renewable energy strategy can make or break economy's manufacturing future*. https://ieefa.org/sites/default/files/2023-09/Vietnams%20Renewable%20Energy%20Strategy%20Can%20Make%20or%20Break%20Economys%20Manufacturing%20Future_May%202022.pdf
10. McKinsey & Company. (2024). *Putting renewable energy within reach: Vietnam's high-stakes pivot*. https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/putting-renewable-energy-within-reach-vietnams-high-stakes-pivot
11. Ngov, P., et al. (2025). Rise of Vietnam's solar panel industry. *VoxDev*.
12. Nguyen, T. A., & Pham, T. H. (2024). *Overview report on Vietnam renewable energy market in the first half of 2024*. Vietnam Energy Magazine.
13. National Assembly of the Socialist Republic of Vietnam. (2024). *Electricity Law (amended)* (Law No. 61/2024/QH15).
14. Singapore Green Finance Centre. (2023, December). *Vietnam renewables: Investment priorities*. https://www.singaporegreenfinance.com/wp-content/uploads/2023/12/Vietnam-Renewables-Investment-Priorities.pdf
15. Prime Minister of the Socialist Republic of Vietnam. (2017). *Decision on promulgating support mechanism for development of solar power projects in Vietnam* (Decision No. 11/2017/QD-TTg). Government Portal. https://vanban.chinhphu.vn/?pageid=27160&docid=189518
16. Prime Minister of the Socialist Republic of Vietnam. (2018). *Decision on amending and supplementing a number of articles of Decision No. 37/2011/QD-TTg dated June 29, 2011 on support mechanism for development of wind power projects in Vietnam* (Decision No. 39/2018/QD-TTg). Government Portal. https://vanban.chinhphu.vn/?pageid=27160&docid=194533
17. Prime Minister of the Socialist Republic of Vietnam. (2023). *Decision approving the National Power Development Plan for the 2021-2030 period, with a vision to 2050* (Decision No. 500/QD-TTg). Government Portal. https://vanban.chinhphu.vn/?pageid=27160&docid=208014
18. Prime Minister of the Socialist Republic of Vietnam. (2025). *Decision approving the adjustment of the National Power Development Plan for the 2021-2030 period, with a vision to 2050* (Decision No. 768/QD-TTg).
19. General Statistics Office of Vietnam. (2025). *Statistical Yearbook 2024*. Statistical Publishing House.
20. U.S. Department of State. (2024). *2024 investment climate statements: Vietnam*. https://www.state.gov/reports/2024-investment-climate-statements/vietnam
21. U.S. Department of State. (2025, September). *2025 Vietnam investment climate statement*. https://www.state.gov/wp-content/uploads/2025/09/638719_2025-Vietnam-Investment-Climate-Statement.pdf