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The Quiet Rise to Prominence of Vietnam's Renewable Energy Corporates

Homegrown Businesses on Track to Define Power Sector's Low-Carbon Future

Executive Summary

Sitting at the helm of Vietnam's power sector transformation in recent years has been the country's private corporations.

Renewable energy has ushered in a new generation of highly diverse and resourceful homegrown power producers to support Vietnam's growth needs, disrupting a sector whose capacity expansion in the past five decades has been in the hands of three state-owned companies and a few global energy majors.

Vietnam's breakneck speed of renewable energy buildout coincided with the spectacular rise and domination of domestic renewables corporations, many without prior experience in the industry. These players came to lead market growth thanks to their competitive strengths in local infrastructure project development experience and the modular nature of renewable energy that enabled financing from the domestic capital market.

Local businesses have also been crucial to the market entry strategy of regional developers and investors.

Vietnam's net-zero emissions target presents renewable energy businesses with abundant scale opportunities in the decades to come. Building on recent successes, many aspiring domestic market leaders have set bold growth targets, signaling a long-term commitment to the local renewables space.

Aspiring domestic market leaders have signaled a long-term commitment to the renewable energy space.

In the same way that domestic private corporations were not expected to spearhead the industry's growth in the past five years, it is perhaps unthinkable now to picture Vietnam's future low-carbon power sector without their presence.

Nevertheless, these players will face new market dynamics as competition with foreign developers intensifies and as the state utility Electricity of Vietnam (EVN) progresses toward a tighter procurement regime that replaces earlier preferential feed-in-tariffs. Cost competition and expansion plans will force leading domestic corporates to explore more diverse and rigorous financing channels in order to stay relevant.

The next few years will offer key insights into how Vietnam's renewable energy ecosystem will develop. For foreign investors and banks, in particular, it will be important to assess how the domestic corporates' growth and evolving funding strategies will reshape Vietnam's green finance needs.

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Vietnam's Renewable Energy Market Catalysts

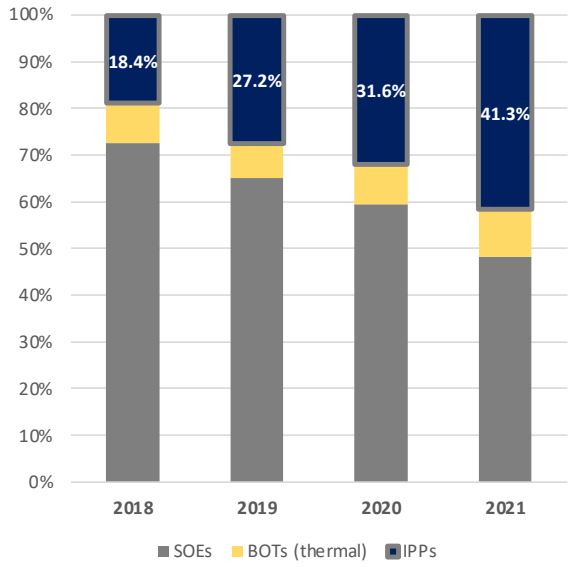
Renewable energy has revolutionized Vietnam's power sector over the past few years. The growth numbers are impressive and the usual explanation has focused on the catalytic role of new policy initiatives in unlocking opportunities. What many commentators have failed to appreciate, however, is that Vietnam's renewable energy growth story could not have happened without the country's private corporations.

Homegrown businesses, many with no prior experience in power assets development and operation, have been the key driving force behind the explosive deployment of solar and wind power capacity, placing Vietnam at the forefront of Southeast Asia's clean energy transition effort.

This is a pattern that has also shaped the rapid development of India's renewable energy industry and may set the stage for a new understanding of how the most promising energy growth markets can scale new renewable energy technologies.

Figure 1: The Real Privatization of Vietnam's Power Sector

Installed capacity by ownership type (%), 2018-2021



Source: EVN's National Load Dispatch Center

In a sector previously dominated by three state-owned companies and a handful of global and regional energy majors, the new entry of dozens of renewable energy independent power producers (IPPs) has led to the most radical transformation, both in technology and ownership structures, of Vietnam's power generation fleet.

By the end of 2021, IPPs accounted for 41.3% of total system capacity, up from just 18.4% in 2018, a year before the first wave of solar power came onstream.

The speed and scale of renewable energy buildout have consistently surprised Vietnam's energy planners and foreign investors. Vietnamese developers came to lead the local renewable energy market thanks to an unconventional risk orientation, agile decision-making capabilities, and operational resilience under the most demanding circumstances.

Controversial power purchase agreement (PPA) clauses put many international developers and financiers on a cautious footing with potential partners and key regulators, who pushed back on frequent requests for terms that would make the PPAs more "bankable" to international lenders.

In the meantime, however, local developers and their banks forged ahead and installed 4.5 gigawatts (GW) of solar farms by June 2019, the cut-off date of the first feed-in-tariff (FIT) round. Two years later, around 3.9GW of wind farms were delivered by late October 2021, even as the country had just been hit by the worst COVID-19 outbreak and toughest mobility restrictions Vietnam had ever seen.

Vietnam's experience presents a compelling case study for regional planners on the value of modular, scalable renewable energy when capital for large-scale generation initiatives is constrained. What's most notable is that new entrants to the renewables sector have unlocked a more diversified pool of investors and funders in power assets development.

If Vietnam's experience is any guide, the lower technical and financial entry barriers to renewable energy relative to larger-scale thermal power plant development have facilitated broader participation of private businesses, enabling them to be a powerful ally of the government in efforts to tackle Vietnam's imminent power crisis.

Private businesses and renewable energy have become powerful allies of the government in tackling Vietnam's imminent power crisis.

In just less than five years, scalable renewable energy has propelled some previously low-profile domestic corporations to the ranks of Vietnam's fastest growing businesses and desirable partners of overseas investors looking for a route to market. While Vietnam has no foreign ownership restrictions in power generation assets, local business participation has been crucial to early-stage project development.

Regional veterans from Thailand, the Philippines, Japan and more recently Europe might have gradually amassed renewable energy interests in Vietnam, but they have not done so without joining hands with domestic counterparts, who have borne project development risks in exchange for technical advice and capital infusion from the international partners.

For certain local players, the unexpected but sweet success brought about by the generous price incentives has produced a more lasting impact. It has reshaped strategy discussions in boardrooms and in the case of several conglomerates, has even pivoted the medium to long-term growth drivers to this new business pillar. Many corporations are now banking their future on clean energy and the ability to further expand their renewables portfolios in the coming years, as encouraged by the government's commitment to decarbonize the economy by 2050.

Now that some of these private corporations have grown rapidly in size and renewable energy ambition, it is important to consider how this generation of domestic players will influence the next phase of development for Vietnam's power sector. It is also of interest to foreign investors, regional developers and banks to consider how these new renewable energy champions will reshape Vietnam's green finance needs.

New renewable energy champions can reshape Vietnam's green finance needs.

Given the pace of growth, and the pressure to refinance, the next 12 to 24 months will offer key insights into how Vietnam's renewable energy ecosystem will develop. In particular, it will reveal whether these companies' managerial and financial prowess can match their clean energy aspirations. The key differentiators will be which companies can improve internal cash flows, balance sheet funding capacity, and banking relationships to support new projects.

Market consolidation will naturally follow for this highly fragmented market that is a target of established overseas energy majors. In particular, how local asset-owners respond to merger and acquisition offers will be a reliable indication of the role that these domestic companies set for themselves in Vietnam's renewable energy landscape: serial project developers or committed sponsors and asset managers.

In light of the large potential scale of Vietnam's domestic market and its ability to support sizable players, it is important to consider the choice of these emerging leaders: will they utilize their local insights and strengths to help other players scale up renewables portfolios in Vietnam, or will they manage growth in a manner that cements their position as market-shaping national renewables corporate champions?

At the same time, the state utility EVN's more competitive procurement policies will be central to the sector's post-FIT stage of growth. They will call for better funding strategies, testing the ability of the local players to secure lower-cost capital. The domestic capital market with lending rates in the range of 9-11% provided the capital needed to jump-start projects under earlier FITs, but sponsors may need to develop new financing channels and innovative structures as EVN forces tariffs down.

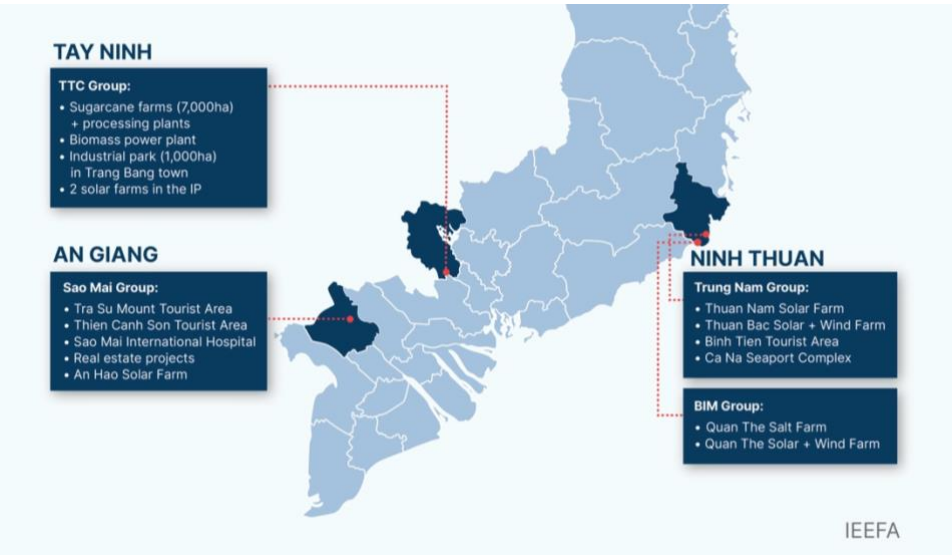
Aspiring Market Leaders

To a large extent, Vietnam's FIT programs were an equal opportunity business initiative for the country's many private sector companies. Standard PPAs coupled with the modular nature of solar and wind power made project development an accessible venture for businesses of varying sizes, those experienced and less experienced in the energy space.

Since 2017, hundreds of solar and wind farms have been licensed and built in solar and wind resource-rich areas in the central and southern provinces of Vietnam. Projects were originated and developed not just by the larger, nationally renowned corporations but also by smaller local businesses and entrepreneurs. Some raced to take hold of as many projects as possible, referring to them as long-term "cash cows" if successfully deployed and qualified for the FITs.[1]

Not unlike in other emerging markets, the key to getting these projects off the ground was a combination of land acquisition expertise, local infrastructure project development skills, and the ability to leverage existing banking relationships and corporate balance sheets to obtain finance, sometimes with a focus on just short- to medium-term local currency loans. Construction and technical works were quickly mastered and supplied by pragmatic engineering, procurement and construction (EPC) contractors, and operations and maintenance (O&M) service providers. Both domestic and international, these often come with supportive trade financing solutions for the project sponsors.

Figure 2: Renewable Energy Leverages Corporates' Local Footprint



Source: IEEFA research

One by-product of this opportunistic market development pattern for Vietnam's solar and wind power market is a high degree of fragmentation by ownership.

[1] Cafebiz. Thanh Thanh Cong Group's 10-year journey. 01 December 2020.

There are tens of businesses owning renewables portfolios with sizes in the range of 50 to 100 megawatts (MW). IEEFA estimates that the 10 largest corporations that now control operating utility-scale solar and wind power capacity hold just around 40-50% of the current market.

Despite a dynamic wave of mergers and acquisitions, and the slowing pace of greenfield project development due to the post-FIT policy vacuum, there is still little sign of a final round of market consolidation that would create an oligopoly of the sort seen in other markets.

On the contrary, there is active competition for market leadership among domestic corporates. The industry has no shortage of prominent players who have set their names distinct from the crowd.

- **Trung Nam Group** is by far the leading renewable energy player, boasting a 1.6GW portfolio of solar, wind, and hydropower plants in operation. Previously active in road and urban infrastructure development, Trung Nam's growth strategy has now become energy-centric, with a target of reaching 3.8GW of renewable energy capacity by 2025. It was the first private business entity that invested and built a 500kV substation and 17km of 220/500kV transmission line to connect its solar farm in Ninh Thuan province to the national grid.

- **Xuan Thien Group** developed the 831MWp Ea Sup plant in Dak Lak province, Vietnam's biggest solar farm to date. A traditional power generator, currently managing a fleet of 400MW of hydropower plants and owner of a significant construction materials business in the north. Xuan Thien was awarded site survey permits for wind power projects off the coast of Nam Dinh and Thai Binh provinces. It also plans to establish a USD160 million factory manufacturing wind turbine parts nearby.[2]

- Prominent conglomerate and real estate developer **T&T Group** has recently signed consecutive multi-billion-dollar partnerships with global energy majors from Orsted, Total Eren to Hanwha. Although new to power generation and owner of a modest fleet of operating solar and wind assets compared to industry peers, the conglomerate eyes the development of over 10GW of renewable energy, including offshore wind, and LNG-to-power within this decade.[3]

- **Bamboo Capital Group**, a multi-industry corporation that previously focused on construction and real estate development, has now established renewable energy as its growth engine for the next five years. A relative newcomer to the electricity sector, the company has become one of the largest renewables developers in Vietnam. It is targeting a 2GW portfolio by

[2] VnExpress. Xuan Thien invests in VND3 trillion factory producing wind turbine equipment. 29 November 2021.
[3] Orsted. Orsted and T&T sign MoU on strategic collaboration for offshore wind projects in Vietnam. 9 September 2021.

2025 and future international expansion.[4] Bamboo Capital has partnerships with Singapore-based Sembcorp and SP Group.

- **Thanh Thanh Cong (TTC) Group** has more than doubled its renewables portfolio in the past five years through aggressive expansion into solar and wind power. A seasoned industry player, TTC Group owns a mix of hydropower and biomass power plants, the latter extending the value chain of the conglomerate's sugarcane business. The company aims to reach 2GW generation capacity by 2025, driven by growth in wind power. Its listed power platform Gia Lai Electricity was recently joined by Jera, Japan's experienced and largest power generator, which acquired 35% stake exited by two institutional investors.[5]

- Leveraging its aquaculture business, **BIM Group** established Vietnam's first renewable energy and salt production complex in Ninh Thuan province. Together with AC Energy, the company developed a 330 megawatt peak (MWp) solar cluster, one of the largest in Vietnam.

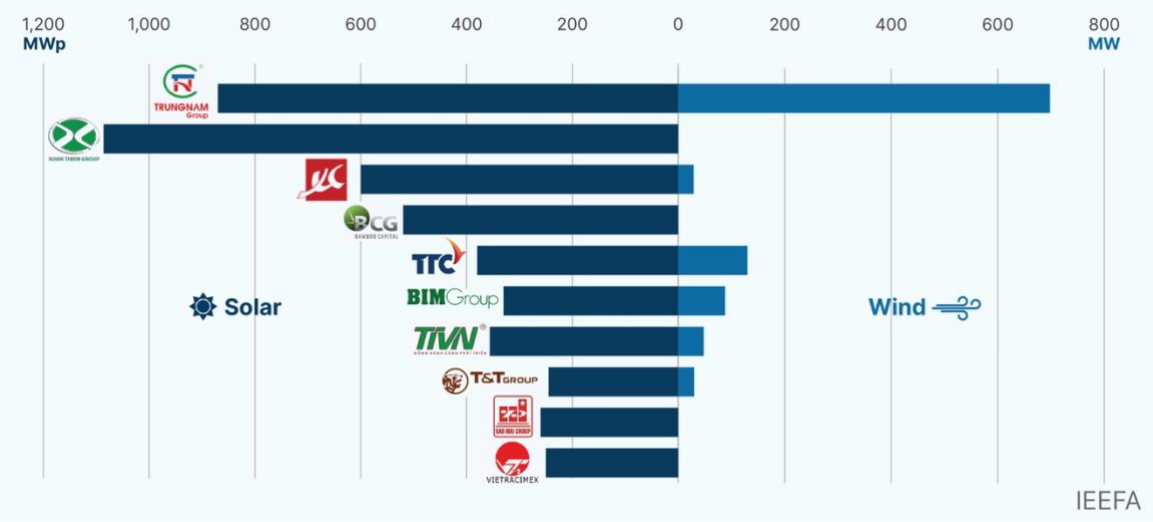
- Several other corporations such as **Sao Mai Group**, **Ha Do Group**, **REE Corporation**, **Gelex Group**, **PC1 Group** have also set 1-2GW renewable energy targets by mid-decade.

Nevertheless, the overall market landscape as of today and the achievements so far of the biggest players put into perspective the scale and aspirations of these high-profile businesses. Some have gotten off to a better start than others, which is reflected in the stock of assets that are already up and running, demonstrating solid project execution experience that these businesses can rely on to build future growth.

IEEFA has identified the top 10 Vietnamese corporations with the largest utility-scale solar and wind power fleet currently in operation, as follows.

[4] Bamboo Capital Group. Report on business performance in 2021, and business orientation for the period 2022-2026. 22 April 2022.
[5] Bloomberg. Vietnam group to boost renewables as nation aims to curb coal. 16 August 2022.

Figure 3: Vietnam's 10 Largest Renewable Energy Players by Operating Assets



Source: IEEFA research. Data as of June 2022.
*Notes: *Includes full capacity of assets that were developed and sponsored by the companies.*
***Includes capacities that have completed construction, though not necessarily fully operational (e.g. T&T Group's Thien Tan 1.2, 1.3 solar farms).*
****Due to uncertainties around admissions of new solar capacity into the national power system from now until 2030, as well as delayed issuance of transitional procurement policies for new solar and wind power projects, pipeline capacities of the companies are excluded.*

Key Market Features

Renewable Energy Plays to the Strengths of Vietnam's Real Estate Companies

Renewable energy development plays to the competitive strengths of the country's domestic real estate and construction companies, with most of the leading players having real estate development as their core business before venturing into renewable energy.

Given the land- and capital-intensive nature of solar and wind power project development, domestic real estate companies have been awarded a favorable advantage, thanks to their familiarity with land acquisition and permitting procedures at provincial levels, and working relationships with local financial institutions. The latter was crucial in the early days of market formation when solar and wind power project lending was a new practice for local banks. At the same time, non-recourse project financing from offshore sources was not available under EVN's non-negotiable PPAs and widely regarded as "unbankable".

Market practices to date have also indicated that multi-industry corporations can leverage the synergy and resources complemented by other units in their ecosystems for renewable energy development. TTC Group built two solar farms

within its Tay Ninh province industrial park. BIM Group erected 22 4MW-wind towers on its industrial salt farm in Ninh Thuan province.[6]

Meanwhile, conglomerates such as Sao Mai Group, Bamboo Capital Group, Gelex, and REE Corporation have all established rooftop solar power businesses to install solar panels and supply clean energy to commercial and industrial properties under their management and beyond.

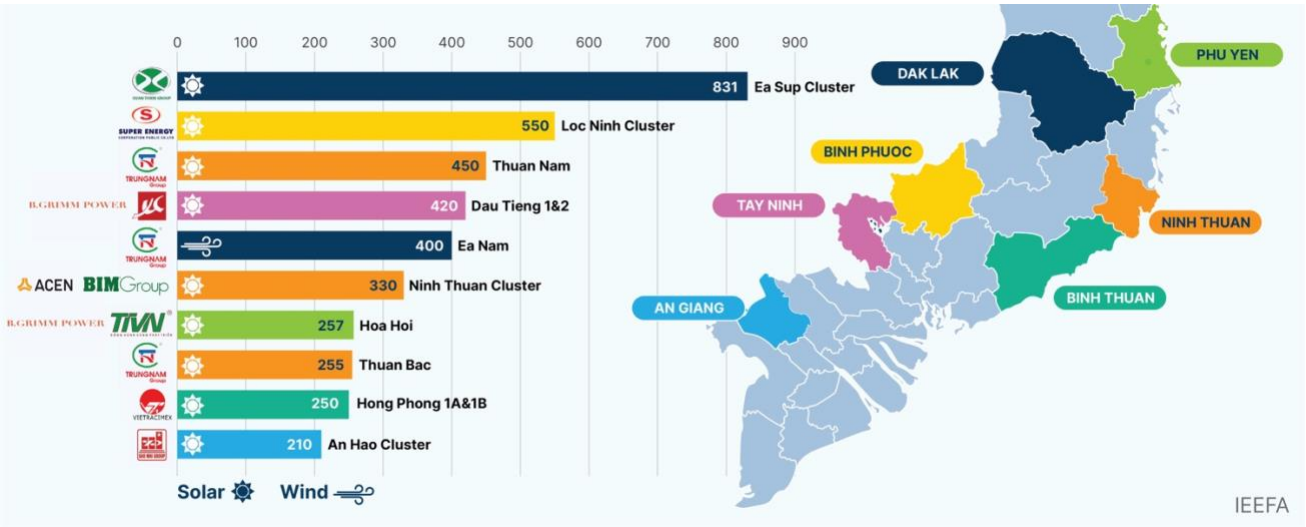
New Players Can Find a Place To Thrive in Renewable Energy

Six of the 10 largest domestic players lack prior experience in the development and management of power plants. Corporations such as Xuan Cau Group, BIM Group, Bamboo Capital Group, TTVN, T&T Group, and Sao Mai Group are fresh entrants to the electricity sector, but they have each, nevertheless, managed to develop hundreds of megawatts of solar and wind power in the past five years.

Some have done so with their own resources, some by partnering with more experienced international players, but their rapid growth is a testament that renewable energy is accessible to power sector newcomers and domestic actors have a role to play in market development.

Truong Thanh Viet Nam Group (TTVN), the youngest company in the top 10 and possibly the most low-profile before 2017, has quickly emerged as a well-regarded developer with a solid portfolio of four operating solar and wind farms jointly developed with international partners and which were comfortably completed before the FIT deadlines. Its Hoa Hoi 257MWp solar farm in Phu Yen province, co-sponsored with B.Grimm Power, remains one of the largest in Vietnam.

Figure 4: Vietnam's 10 Largest Solar and Wind Power Assets in Operation



Source: IEEFA research. Data as of June 2022.

[6] The Saigon Times. BIM Group completes Vietnam's largest renewable energy-salt production complex. 04 October 2021.

For these corporations, much more work awaits. Many have announced project pipelines with multiples of their installed fleet, though at varying stages of preparation. And for many, renewable energy has become integral to their growth strategies.

Bamboo Capital Group is a good example of this trend. The company is a relatively young conglomerate that was established in 2011 with an initial focus on investment and financial advisory services and a later expansion into construction and real estate development. Having put into operation four solar farms amounting to 520MWp, its management has now defined renewable energy as its strategic business pillar in the medium to long-term. In 2021, renewable energy accounted for 20% of the group's total profit. With two wind farms nearing construction and several others under plan, the company targets a 2GW portfolio by 2025, seeing opportunities also in offshore wind, and battery storage investment to help enhance the efficiency of its renewable energy assets.[7]

Construction and real estate veteran Sao Mai Group has also integrated renewable energy into its ecosystem. The conglomerate has recently turned its 210MWp An Hao solar farm in An Giang province into a tourist attraction by adding an adjacent hospitality facility. It is also pursuing sizeable solar and agri-solar projects in Dak Nong (875MWp) and Dak Lak (450MWp) provinces, though actual implementation will rest on the government's upcoming renewable energy policy.[8]

Foreign Partnerships Delivered Strategic Support on Project Development and Financing

The rapid growth of the domestic players has sometimes been tied closely to the support they received from international partners. Bringing in experienced partners from an early stage of project development was the business strategy of choice for many Vietnamese companies, especially those previously unfamiliar with the power industry. As a sensible route to market for the international players, this has also proven to be a win-win solution for both parties.

Although seasoned European developers have established a presence in the market, it is their Asian competitors that have played the most catalytic role, providing the technical expertise and much-needed financial resources. Notably, the more established Asian energy companies have utilized their resources to mobilize capital from the multilateral development banks and regional capital markets, including sources of green finance, to support local

Asian developers have played the most catalytic role in market development.

[7] Bamboo Capital. Report on business performance in 2021, and business orientation for the period 2022-2026. 22 April 2022.
[8] Sao Mai Group. Annual Report 2021. Accessed on 15 July 2022.

renewable energy projects. These are valuable guidance for the Vietnamese corporations' future funding strategy.

Table 1: Partnerships Between Vietnamese and International Players

Domestic partner	International partner	Partnership details
BIM Group	**AC Energy**	Joint development of over 400MW of solar and wind power capacity in Ninh Thuan province; AC Energy holds 50-65% stake in each project.
FECON	**ACWA Power**	Joint development of 50MWp solar farm in Binh Thuan province; ACWA holds 60% stake.
PCC1 Group	**Renova**	Joint development of 3 wind farms with combined capacity 144MW in Quang Tri province; Renova holds 40% stake in each.
Sao Mai Group	**Koyo Corporation**	Joint development of a 210MW solar project in An Giang province.
TTC Group	**Gulf Energy**	Joint development of two solar farms with combined capacity 120MWp in Tay Ninh province; Gulf Energy holds 90% stake in each.
TTVN	**B.Grimm Power**	Joint development of 257MWp solar project in Phu Yen province, B.Grimm holds 80% stake. B.Grimm also acquired 80% stake in 48MW wind project in Quang Tri province currently under construction.
	Sermsang	Joint development of 50MWp solar farm in Quang Ngai province and 48MW wind project in Tra Vinh province; Sermsang holds 80% stake in each.
	Quadran International	Joint development of 50MWp solar farm in Binh Dinh province.
Xuan Cau Group	**B.Grimm Power**	Joint development of a 420MWp solar farm in Tay Ninh province; B.Grimm later acquired a 240MWp-section of the project.

Source: IEEFA research

For example, AC Energy, the energy platform of the Philippines' Ayala Group, was the key partner of BIM Group, a private real estate and hospitality developer, in realizing the 330MWp solar cluster and 88MW wind farm in Ninh Thuan province. AC Energy holds 50-65% stake in each project[9] and has brought it hundreds of million dollars in financing from Rizal Commercial Bank (the Philippines) as well as proceeds from green bonds that it issued on the Singapore Exchange.[10]

Showing appreciation for AC Energy, BIM Group's chief executive said in an interview: "We needed an experienced partner that would help put [the Ninh Thuan solar project] up. We are thankful that AC Energy stepped up to be that partner."[11]

Xuan Cau Group and TTVN also benefited from a boost to their public profile and portfolio size following successful collaborations with B.Grimm Power. In 2018, the Thai company inked a USD420 million deal with Xuan Cau Group to jointly develop a 420MWp solar farm in Tay Ninh province. In the same year, it co-sponsored the 257MWp Hoa Hoi solar farm with TTVN. Both projects came online in June 2019, benefiting from a FIT premium of USD93.5 per MWh for 20 years.

[9] AC Energy. International Assets – Vietnam. Accessed on 15 July 2022.
[10] AC Energy. Use of Green Bond Proceeds and Environmental Impact. Accessed on 15 July 2022.
[11] Inquirer.net. AC Energy begins solar operation in Vietnam. 29 April 2019.

The Thai conglomerate was instrumental in getting over USD300 million in refinancing for the two projects from the Asian Development Bank (ADB).[12] [13] It holds majority interests in both projects: 80% stake in the Hoa Hoi plant, and full ownership of the 240MWp section of the Tay Ninh solar farm after this was split in two.

Although a more mature player in Vietnam's energy sector with an extensive portfolio of hydroelectricity and biomass power plants, TTC Group partnered with Thailand's Gulf Energy in two of its pioneer solar power projects. In June 2019, the pair inaugurated two solar farms, with a combined capacity of 120MWp and a total investment of USD115 million, inside TTC Group's industrial park in Tay Ninh province. Gulf Energy currently holds a 90% stake in the two plants.[14] One of them secured refinancing from a syndicated loan led by the ADB.[15] By the end of 2021, TTC Group had connected another five solar farms and three wind farms to the national grid.

It is very likely that local-foreign partnerships will dominate Vietnam's offshore wind market as this takes shape. Given the potential complexities and sensitivities around offshore wind, major global offshore wind players such as Copenhagen Infrastructure Partners, Mainstream Renewable Power, Orsted and Macquarie's Corio Generation have already picked their local development partners for their maiden projects in the country.

Table 2: Offshore Wind Development Partnerships

Domestic partner	International partner	Offshore wind partnerships
Asiapetro, Novasia	**Copenhagen Infrastructure Partners**	Joint development of 3.5GW La Gan offshore wind project in Binh Thuan province.
FECON	**Corio Generation**	Joint development of 500MW offshore wind project in Vung Tau province.
Phu Cuong Group	**Mainstream Renewable Power**	Joint development of 1.4GW offshore wind project in Soc Trang province.
T&T Group	**Orsted**	Joint development of ~10GW offshore wind projects in Ninh Thuan and Binh Thuan provinces.

Source: IEEFA research

[12] Asian Development Bank. ADB, Phu Yen JSC sign Vietnam's first certified green loan for 257MW solar power project. 09 October 2020.
[13] Asian Development Bank. Vietnam: B.Grimm Viet Nam Solar Power Project (Dau Tieng Project). Accessed on 15 July 2022.
[14] Gulf Energy. Annual Report 2021. Accessed on 15 July 2022.
[15] Asian Development Bank. Viet Nam: Gulf Solar Power Project. Accessed on 15 July 2022.

Divestment and Acquisition Preferences Reflect Strategic Positioning and Asset Management Capabilities

Vietnamese businesses' autonomy in developing renewable energy projects has demonstrated their entrepreneurial and financial capabilities, particularly during project origination. As the market moves past the project development phase and foreign investors aggressively step in, the speed and nature of divestment will speak to the domestic corporates' asset management skills, financial resilience, and overall longer-term strategies for their renewables business.

It is notable that Trung Nam Group, Vietnam's current renewable energy champion, has independently developed all of its solar and wind assets to date. In early 2021, the company sold a 49% stake in the 255MWp Thuan Bac solar farm to a Vietnamese company, and gave up 35% ownership in a 152MW wind farm in the same area to the Japanese Hitachi Sustainable Energy.[16] Bloomberg reported in July 2022 that the Vietnamese company was planning to sell about 30-35% stake of its renewables portfolio, potentially valuing it at over USD1 billion.[17] Last year, in a statement of ambition, Trung Nam vowed to retain controlling interests in all of its assets, with proceeds from the minority stake sale used to fund future developments.[18]

In contrast, second-biggest market player Xuan Thien Group, which also relied on its own resources to build the 1GWp solar fleet, recently reached a deal to sell off its 255MWp Thuan Bac solar power plants to EDP Renewables, the green energy subsidiary of the Portuguese utility company EDP which has pledged to invest up to USD7.4 billion in the Asia-Pacific region by 2030.[19] [20]

Xuan Thien is not alone in this aspect. Many of the smaller local developers have also been shedding assets, charging a premium for successful project origination and completion. It is thanks to this type of developer that Thailand's Super Energy Corporation has gradually assembled over 1GW of solar and wind power assets in Vietnam.[21] These businesses have been key to the market entry and expansion of the late entrants and more risk-averse investors but who are more adept at managing renewable energy assets.

[16] VnExpress. Trung Nam Group sells stake in wind power plant. 15 May 2021.
[17] Bloomberg. Vietnam's Trung Nam Group exploring renewable asset stake sale. 05 July 2022.
[18] The Leader. Trung Nam Group affirms not to divest controlling stakes in renewable energy projects. 18 May 2021.
[19] EDPR. EDPR informs about the solar PV deal in APAC. 27 June 2022.
[20] Reuters. EDP Renewables to invest up to S$10 billion by 2030 for clean energy hub in Singapore. 24 February 2022.
[21] Super Energy Corporation. Projects. Accessed on 15 July 2022.

Project acquisitions by the experienced power asset-holders, both domestic and foreign, will likely drive market consolidation in the next couple of years, prompting a reshuffle in the positioning of currently prominent market actors.

To name a few, publicly-listed power sector veterans such as REE Corporation, Ha Do Group, and Gia Lai Electricity (the listed power platform of TTC Group) have all indicated that they plan to expand their capacity if suitable M&A opportunities come along.[22] [23] [24] By being able to integrate individual solar and wind farms into a bigger portfolio of diversified power assets, these players are placed in a more comfortable position financially to handle short term curtailments, manage annual revenue risks, and to mobilize refinancing for the plants.

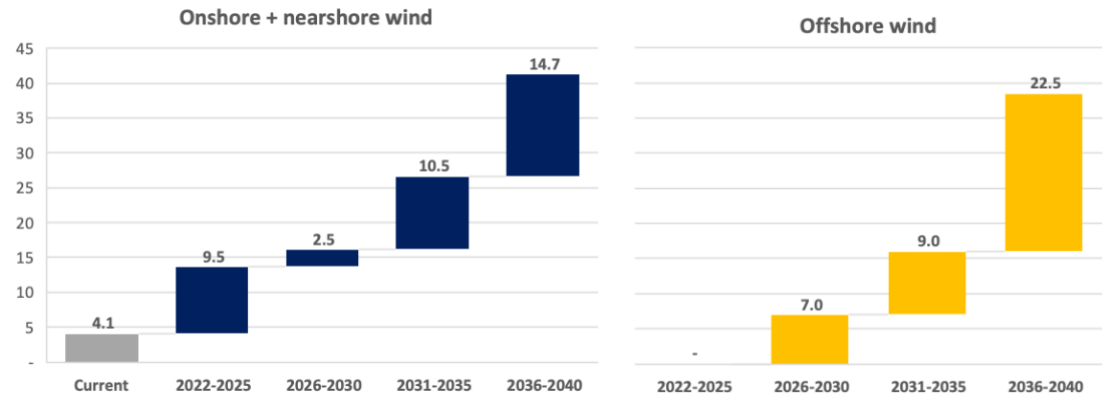
Project acquisitions by the experienced power asset managers will drive market consolidation.

REE Corporation is one to watch. Active in power generation since 2010, the company has an assortment of coal, hydropower and, more recently, rooftop solar and utility-scale wind assets, with a total attributable capacity of 978MW as of late 2021. Notably, it recently started divesting its coal interests and has committed to be fully coal-free in the near future.[25] Despite this, REE is targeting to double its generation capacity by 2025, which will be driven primarily by new investments in solar and wind power. (Earlier this year, the company brought to its board an executive of the Global Wind Energy Council.)

[22] REE Corporation. Meeting notes of 2021 Annual General Meeting. 31 March 2022.
[23] Ha Do Group. Report of the Executive Board on the Group's 2021 business performance and plans for 2022. 07 April 2022.
[24] Gia Lai Electricity Corporation. Documents for 2021 Annual General Meeting. 05 April 2022.
[25] REE Corporation. Annual Report 2021. Accessed on 15 July 2022.

Figure 5: Wind Opportunities

Proposed capacity additions (in GW), 2022-2040



Source: Draft Power Development Master Plan 8 (August 2022), high-load scenario

What to Expect in a Post-FIT Environment

While corporate growth targets matter, it is also important to consider how local players will adjust to the new market dynamics that will emerge in the sector's post-FIT stage of development.

The end of FIT programs marks a turning point for the relatively non-discriminatory market landscape that has so far enabled domestic businesses of varying sizes and industry expertise to venture into renewable energy generation. As the Ministry of Industry and Trade (MOIT) and EVN progress towards more effective price discovery mechanisms, it is competition that will become the defining feature and key driver of Vietnam's renewable energy market going forward.

The departure from preferential FITs is as practical as it is unavoidable. On the one hand, EVN's cost pressures have recently intensified due to surging fuel prices and higher integration of FIT-based renewable energy. Amidst the continuous freeze on retail tariffs that has shielded Vietnamese consumers from soaring energy bills, little room for generosity is left for the state utility.

On the other hand, leading renewables players will be motivated to deliver on the promise of cost-competitive renewable energy and come out of future price negotiations or reverse auction rounds with tariffs consistently lower than earlier FITs (i.e. USD71/MWh for solar, and USD85/MWh for onshore wind). The good news is that such outcomes will help strengthen the credibility of renewable energy and support the industry's further growth.

This new environment, however, will unlikely engage the same breadth of local developers and entrepreneurs as previously seen. Instead, it will tilt the scale in favour of those players with solid internal cash flow, strong balance sheet funding capacity and banking relationships supporting new projects, which can build bargaining capacity through scale and an expanding renewables portfolio. This is when the well-diversified conglomerates will prove their edge.

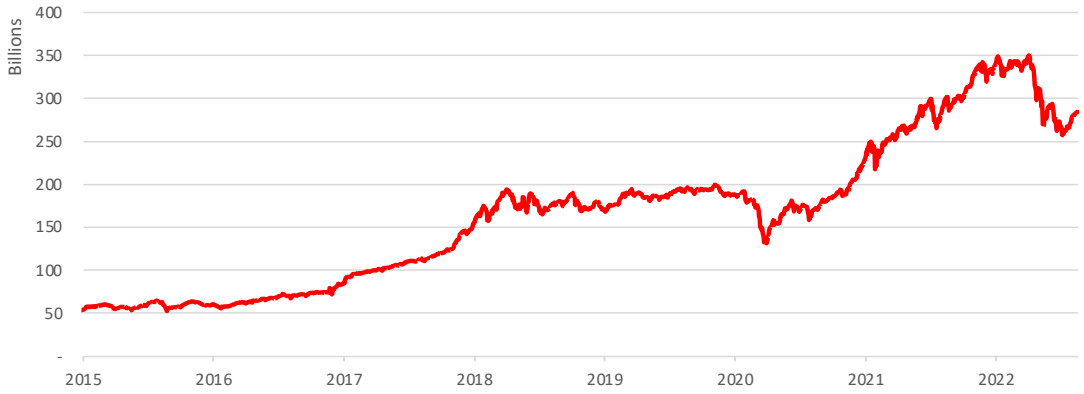
For many players at this stage of development, and under the new competitive climate that is also influenced by the foreign players who have now become more comfortable with and integrated into the market, there will be a natural progression towards more diversified and rigorous funding strategies.

While some businesses may choose to rely on resourceful international partners in exchange for equity investments, the likely winners may opt for direct and indirect access to a mix of offshore debt, concessionary financing, and to capitalize on Vietnam's growing equity market. Concerning the latter, certain players already seem to have taken steps in corporate and asset restructuring, which will facilitate a future spin-off of their renewables subsidiary. This could help to generate the cash needed for mergers and acquisitions. This is a funding avenue that has proven highly successful for companies such as China's Three Gorges Group.[26]

Meanwhile, the focus on offshore debt reflects the current limits on the lending capacity of the domestic banking sector. In this aspect, the experience of Vietnamese renewable energy corporates varies significantly. Some will have to get started from very humble beginnings. In contrast, conglomerates with past transactions with overseas financiers and institutional investors will be in a prime position to get ahead of the race in the coming years.

Figure 6: Vietnam's Stock Market as a Funding Channel

Vietnam Exchange market capitalization (USD billion), 2015 – 2022



Source: Bloomberg

Vietnamese players can also follow in the footsteps of their regional peers from Thailand and the Philippines, who have shown that Southeast Asian renewable energy assets cater neatly to the appetite of the burgeoning global sustainable finance market. The challenge for these companies is to establish the proper credentials and structures to connect this source of funding with Vietnam's sizeable fleet of solar and wind power projects, whose green credentials are generally uncontested.

[26] Bloomberg. Renewables giant jumps in debut after biggest 2021 China IPO. 10 June 2021.

Access to the global sustainable finance market requires a level of corporate governance and disclosures as well as internal resources, which could be unfamiliar to many Vietnamese renewables businesses. This, however, could play to the strengths of several publicly listed entities, particularly those with a firm sustainability agenda and a track record in sustainability reporting.

Since 2020, Vietnamese renewable energy companies have issued at least USD3.1 billion worth of VND-denominated corporate bonds on the domestic market, per IEEFA estimates. Coupon rates have, at times, gone up to 11.25% per year. However, none have yet to approach the offshore market. Recent international issuances by Vietnamese corporations—only seven issuances from 2021 until now—have mostly been for real estate development and clean transport.

Hopefully, this will soon change. BIM Group last year raised USD200 million for its real estate projects from green-labelled corporate bonds issued on the Singapore Exchange.[27]

The Vietnamese government and EVN also have a critical role in supporting domestic players to stay the course—by indirectly facilitating lower financing costs via grid upgrades. Under existing PPAs, high curtailment risk imposed on renewable power generators has raised significant concerns for investors, who have priced this risk into funding costs. With little prospect of PPA revisions to match international standards, lenders can only be persuaded on lower rates if they are given reassurances on adequate and stable revenue streams through measurable grid improvements and better visibility of EVN's investment plans.

Vietnam's solid electricity demand profile provides renewable energy investors with reasonable grounds to bear in part or full market risk—which is distinct from their peers in fossil fuel-based power generation, who are typically protected by the PPA's capacity payments and offtake guarantees. However, this must be supported with certainty on the plant's ability to export its full output to the grid and receive proper compensation.

Going the Distance

Vietnam's 2050 net-zero emissions aspiration warrants the local renewable energy market a long and exciting future ahead. There is enough scale potential to accommodate the ambitions of even the boldest players combined.

In the same way that domestic private corporations were not expected to spearhead the industry's growth in the past five years, it is perhaps unthinkable now to picture Vietnam's future low-carbon power sector without their presence.

As the evolving market dynamics will present a new set of challenges and opportunities for those involved, it will be important for foreign investors,

[27] The Saigon Times. BIM Land raises US$200 million via debut issuance of Singapore-listed bonds. 06 May 2021.

developers and banks to consider how local players will carve out their unique roles and influence the market's next phase of development.

It is worth noting, however, that at this critical moment for Vietnam's energy transition journey, international developers and investors stand to gain from having capable domestic allies. Supporting Vietnamese players to evolve and take an active voice in policy formulations and market development will benefit the broader renewable energy industry.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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