

Stride - Clean Energy Solutions Accelerating Renewable Adoption Across Vietnam

1. Executive Summary

Stride enables households and businesses in Vietnam to adopt rooftop solar and battery storage systems by addressing two of the most persistent barriers to clean energy uptake: high upfront investment costs and concerns around installation quality and long-term reliability. Through deferred payment solutions, independent quality assurance, and insurance, Stride reduces both financial and technical risks for customers, allowing them to transition to renewable energy with confidence.

During the P4G Funding Period (April 2024 – December 2025), Stride achieved significant investment readiness milestones:

- **Capital Raised:** Secured **\$3.5M USD** in Series A equity (UOBV, SEACEF II, Touchstone Ventures) and **\$5M USD** in debt funding (Trine).
- **Impact:** Deployed 579 rooftop solar across residential and commercial sectors, enabling customers to reduce energy bills by an average of **38%**.

Stride's integrated business model combines system design, flexible financing, installation oversight, quality assurance, and insurance coverage into a single, end-to-end solution. P4G's catalytic support played a critical role in accelerating this growth by providing early-stage funding, enhancing Stride's visibility within the climate technology ecosystem, and facilitating access to strategic partners and investors. This support directly contributed to increased investor confidence and faster capital mobilization, strengthening Stride's pathway to scale.

2. Background and Problem Analysis

2.1. Background

In April 2025, the Government of Viet Nam approved the revised Power Development Plan VIII (PDP VIII), establishing a long-term roadmap for the country's energy transition with a strong emphasis on renewable energy. This plan sets out an ambitious long-term roadmap for decarbonizing the power sector, with renewable energy - particularly solar - at its core. PDP VIII targets total installed solar capacity of 73 GW by 2030 and up to 295 GW by 2050, while also aiming for solar adoption by 50 percent of households and offices by 2030. By mid-century, solar energy is expected to become the country's largest source of power, contributing approximately 45 percent of all new energy supply by 2030. The plan further outlines a gradual phase-out of coal-fired power generation by 2050, reinforcing Vietnam's commitment to net-zero emissions¹.

2.2. Challenge

Vietnam has rapidly developed into an export-driven economy, supported by manufacturing, services, foreign investment, and global supply chains. GDP growth has remained strong at 6–7% annually, reaching 8.02% in 2025ⁱⁱ, with projections exceeding 10% during 2026–2030. By 2050, Viet Nam is expected to be among the world's top 20 economies.

At the same time, Vietnam is highly vulnerable to climate change, while rapid expansion of energy-intensive sectors is driving electricity demand to rise up to fivefold by 2050. The rising energy

demand has put pressure on nation power grids. In the meantime, solar energy offers a strong alternative and battery systems support the storing of excess solar energy, providing peak-shaving, and delivering backup power.

However, the solutions mentioned still have key barriers for households and businesses, which are detailed in table below

Energy challenges		Environmental challenges
Traditional energy provided by electricity provider	Solar energy without comprehensive support	
– Rising electricity tariffs (projected annual increases of 3–5%) – Peak-hour constraints and outages, leading to operational losses	– High upfront investment for combined solar + storage – Limited Quality Solar Installers and Standards to evaluate solar providers and the quality of solar brands – Uncertainty around performance and long-term reliability – Lack of payment plan options	– Lack of solution to contribute to GHG reduction objectives – Climate changes and its impact cause damaged existing facilities, higher cost maintenance increase

Stride was established to solve these issues and deliver an end-to-end energy solution, which is detailed in Section 3.

3. Solution

Stride supports Vietnam’s renewable energy transition by providing affordable, high-quality solar to households and businesses, with a particular focus on underserved customer segments.



Figure 1. Solar projects for under-served segment

- **High quality solar system installation:** Stride has partnered with validated EPCs to install the solar system, following our technical standards. This might include adequate and verified materials, and good quality of solar energy system.
- **Deferred Payment Plans:** By providing a range of deferred payments plans, customers minimize the up-front capital required to take up solar energy. This reduces one of the key barriers to the adoption of solar energy and is a key enabler for mass-scale uptake.
- **Complimentary Insurance:** Customers are provided with complimentary insurance covering fire, storm damage, flood etc. This helps provide customers with peace of mind when purchasing their solar installation.
- **Complimentary Quality Assurance:** Stride independently checks all solar installations post completion to provide customers with additional comfort that their installation was completed following required safety standards and using the stated materials.



Figure 2. Stride conduct the QA steps at one roof top solar project

These services are coordinated through Stride's proprietary technology platform, which connects customers and installers in a structured and transparent manner. By integrating financing, quality control, and risk management into a single platform, Stride enables scalable and reliable deployment of clean energy solutions while directly contributing to greenhouse gas emission reductions.

4. Methodology

Stride provides multiple acquisition models designed to meet the needs of different customer segments:

4.1 Direct Purchase: Stride provides end-to-end support covering system design, procurement, construction, installation, and commissioning. Customers gain full ownership of the solar system upon completion and benefit from long-term energy cost savings, warranty coverage, and ongoing technical support. This option is particularly suited to businesses with available capital and a preference for asset ownership.

4.2 Deferred Payment / Installments: Stride offers deferred payment and installment-based solutions that cover between 80% and 100% of system costs. These arrangements eliminate the need for asset collateral while allowing customers to own the system from the outset and manage operation and maintenance responsibilities. Warranty coverage remains consistent with full-payment installations, and Stride secures additional insurance throughout the repayment period to mitigate financial and operational risks.



4.3 Energy-as-a-Service ELA: under which customers pay only for the electricity generated or stored by the system. This model requires no upfront investment from customers, as Stride retains ownership of the assets and assumes responsibility for operation, maintenance, and insurance. By offering predictable and competitive energy pricing over the contract term, this approach is particularly attractive to SMEs seeking cost certainty and minimal operational complexity.

Case Example: – PPA Model for a Corporate Customer

A Toyota franchisee aimed to meet corporate ESG targets while lowering electricity costs, without committing upfront capital or managing ongoing system maintenance. Based on the site's roof capacity and energy demand, a 127 kWp rooftop solar system was deployed under a Power Purchase Agreement (PPA) model. Stride fully financed, owned, and maintained the system, while the customer paid only for the electricity generated at a 30% discount to the prevailing EVN tariff. Over the 15-year contract term, the franchisee is expected to save approximately USD 116,000 in electricity costs, with system ownership transferred at the end of the agreement.



Figure 4. Toyota Binh Phuoc Project

Between April 2024 and December 2025, Stride's deployments delivered strong technical, financial, and environmental outcomes. Customers achieved an average reduction of approximately 30% in monthly electricity expenditure, strengthening the operational resilience of SMEs and industrial clients. In parallel, Stride deployed 25.2 MWp solar capacity that directly contributed to the implementation of PDP VIII and Vietnam's net-zero 2050 ambitions, while facilitating the avoidance of 13,957 tonnes of CO₂ emissions through the displacement of grid-based fossil fuel electricity.

Improvements in energy reliability were also evident. Customers experienced fewer power disruptions following installation, and a third-party customer survey conducted in October 2025 showed that 89% of Stride customers reported access to high-quality and reliable electricity, compared to 73% prior to installation ⁱⁱⁱ.



Figure 5. Installed 200 kWp Solar System

5.2 Qualitative Impact

In 2025, Stride developed and embedded a robust Environmental and Social Governance Management System (ESGMS) across its operations and supply chain, ensuring that all solar projects are implemented in line with both international best practices and applicable local environmental and social standards.

Beyond internal systems, Stride actively contributed to strengthening the local solar ecosystem by delivering capacity-building initiatives for EPC partners, which improved installation quality, safety protocols, and overall technical standards across the sub-sector. Throughout this process, Stride maintained strong and transparent engagement with local regulators and communities, building a high level of stakeholder trust and reinforcing its position as a reliable partner in Vietnam's energy transition.



Figure 6. Roundtable organized by Stride in collaboration with the Vietnam Clean Energy Association, December 2025

Customer Spotlight:

- *“Stride’s Solar Home System (SHS) has made a big difference by cutting down my monthly electricity bills, which used to take up a big part of my expenses.” – Male, 25 years*
- *“One of the best parts is the peace of mind I get. I know that if there’s a blackout, my equipment won’t suddenly shut down, and that security is really valuable. On top of that, my bills are much lower, so I’m saving money while also avoiding stress.” – Male, 50 years*
- *“Stride helps me cut down on costs, so I can make a bit more profit in my business. Plus, having a steady power source means I don’t have to worry about outages anymore, which makes me feel a lot more secure and comfortable.” – Female, 63 years*

6. Challenges & Solutions for Investment and Scale Readiness

6.1. Managing High costs and Financial Risk

Solar systems with or without battery storage remain expensive, and many small businesses (SMEs) cannot afford the upfront cost. Traditional credit checks and paperwork are often slow, which frustrates customers and delays projects. Furthermore, without a steady stream of capital, it is difficult to fund many projects at once.

Our Solution: We offer flexible payment plans to remove the need for a large initial investment. To fund these projects, we partner with impact investors. These partners provide us with funding specifically dedicated to renewable energy, which we then pass on to our customers as affordable financing.

We have made solar more achievable by using our mobile app with biometric validation. This allows customers to verify their identity and sign contracts instantly. By removing the need for physical paperwork and long waiting times, we have made it much quicker and easier for customers to approach to solar energy system.

6.2. Ensuring High-Quality Installations

Stride's decentralized business model relies on a network of EPC partners for physical installations. The primary challenge is the lack of standardized technical execution across the market, which can lead to safety risks, reduced system longevity, and sub-optimal energy yields.

Our Solution: We only work with installers who pass our validated process and follow our technical standards. Before the final disbursement, an independent engineer conducts a thorough site audit; any technical discrepancies identified must be fully remediated to ensure the system meets Stride's Technical standards. This mechanism ensures that every asset in the portfolio is safe, efficient, and reliable for the end-user.



Figure 7. Stride Technical Standards were introduced and became effective in Dec 2025

6.3. Bridging the Education Gap for Customers and Partners

Stride identified two main areas where a lack of information slowed down solar adoption.

For Customers: Many small businesses find solar technology and its financial benefits difficult to understand. Without clear proof of how much they will actually save and project efficiency, they are often hesitant to commit to a project, and it will slow down Vietnam's renewable energy acceleration plan.

- For EPC Partners: Vietnam's energy regulations change quickly. Local installers (EPCs) often struggle to keep up with the complex paperwork and government requirements needed to register and approve new solar projects.

Our Solution: Stride addresses these gaps by prioritizing stakeholder education, ensuring that both partners and customers are fully briefed on the technical and economic benefits of solar energy:

- To build trust, we launched a user-friendly mobile app that shows energy production and money savings in real-time. By using clear visuals, customers can easily see the direct benefits of their solar system. This transparency removes the "guesswork" and gives customers the confidence to switch to renewable energy.
- To help our partners to enhance their capacity, Stride established clear technical standards with the support of P4G funding for all projects. We conduct workshops that bring together installers, ind

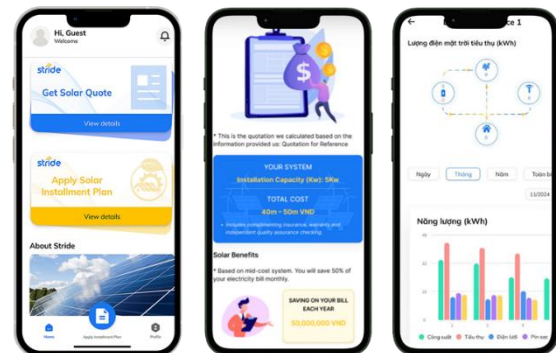


Figure 8. Stride's mobile application by customer and EPC



These meetings help everyone stay updated on the latest regulations, resources saving and ensure that solar projects are registered correctly.

7. Lessons Learnt

The journey to scaling solar energy in Vietnam has taught us that technology alone isn't enough; you must also build a foundation of trust and collaboration.

- **Data is essential:** We found that customers are often hesitant because they cannot see the benefits. By providing real-time data through a mobile app, we turned a complex technical product into a clear financial benefit, which greatly accelerated how quickly customers made decisions.
- **Quality Control:** Relying on third-party installers is necessary for growth, but it remains risky. We learned that QA procedure is crucial to ensure every system is safe and reliable for the long term. We only make final payments to installers only after an independent engineering audit is finished.
- **Stakeholder Engagement:** Navigating evolving government regulations is challenging for any single company. Through knowledge-sharing sessions with EPC partners and government officials, supported by P4G, Stride helped streamline project approval processes, improve regulatory clarity, and reduce delays and inefficiencies.

8. Recommendations

8.1. For SMEs and Households (Customers)

Small and medium-sized enterprises and households are encouraged to consider integrated solar solutions that include battery storage, as this enables better management of energy costs while improving resilience against grid outages and peak-hour disruptions. Battery systems allow customers to store excess solar generation for later use, reducing dependence on the grid and preventing operational downtime. In addition, customers should explore deferred payment or installment-based financing options rather than relying on their own capital. These financing models help preserve cash flow while still delivering immediate reductions in electricity bills, making clean energy adoption more accessible and financially sustainable.

8.2. For Government & Industry

To achieve the national target of 50 percent solar adoption by 2030, government agencies should establish clear, consistent, and transparent permitting guidelines that cover the full lifecycle of solar projects, from installation through operation and resignation process with government. These requirements should be communicated widely through regular information-sharing sessions involving local authorities, industry associations, and solar installers to ensure consistent interpretation and compliance. In parallel, the introduction of targeted incentives for battery storage would help reduce upfront investment costs, improve grid stability, and enable businesses to maximize the use of self-generated clean energy, thereby strengthening both energy security and the overall resilience of the national power system.

8.3. For Investors



Stride's experience shows that scaling renewable energy requires a digital-first approach to build trust and ensure technical quality. By using a mobile app with biometric validation and real-time data, Stride replaced slow paperwork and made the financial benefits of solar energy clear and verifiable for customers. A key lesson is that strict quality control - such as using independent engineers to audit projects before installers are paid - is vital for protecting long-term asset value and building investor confidence

To further accelerate the energy transition, Stride recommends that investors focus on integrated business models that combine modern technology with strong local partnerships. Supporting companies that organize industry workshops can also resolve regulatory confusion and improve the quality of local installations across the sector.

In addition, having a robust Environmental and Social Governance Management System is also key to attracting capital from investors. Companies should invest in ESGMS frameworks and policies early in their journey and integrate into their operations to ensure environment and social impacts are well-managed.



References

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ⁱⁱⁱ Stride Impact Performance Snapshot, surveyed by 60_Decibels in Oct 2025.