



Nepal Private Equity Association

A Case study of Gham Power by
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Powering Nepal's Energy Transition Through Distributed Solar Innovation



A VISION BORN FROM CRISIS



In 2010, Nepal was in the grip of a severe electricity crisis. Households and businesses faced up to 18 hours of daily power cuts and relied heavily on costly and polluting diesel generators. Hydropower, the country's main energy source, could not meet growing demand, particularly during the dry season. Nepal needed both an immediate solution to its energy shortage and a more sustainable path for the future.



To help address the crisis, **Sandeep Giri** founded **Gham Power Nepal Pvt. Ltd.**, with a mission to replace non-renewable energy sources with sustainable solar solutions and help meet Nepal's growing energy needs. The name Gham Power encapsulates the company's founding vision, and continues to define its identity.



What started 15 years ago as a small solar energy provider serving a few offices in Kathmandu has grown into one of Nepal's leading renewable energy companies. Gham Power has pioneered innovative financing models, brought electricity to over **200 rural schools and 100 health posts**, and is now helping Nepal's industrial sector to adopt clean, reliable and cost-effective solar energy.

FROM URBAN ROOFTOPS TO RURAL COMMUNITIES

Gham Power initially focused on offices and small businesses in urban and semi-urban areas, where prolonged load-shedding was disrupting their basic operations. At a time when households and businesses largely relied on inverters and diesel generators, Gham Power offered a reliable and sustainable solar alternative, helping keep businesses running despite frequent power cuts.

Recognising that nearly 40% of Nepal's population lacked access to electricity, Gham Power expanded its focus to rural communities, where access to electricity was very limited. It installed solar systems in health posts and schools, bringing reliable power to communities beyond the reach of the grid. This work was a strong example of how solar power can be a powerful tool for social development, and not just a commercial opportunity.

A critical challenge emerged from this experience: access to electricity was not enough. Communities also needed ways to generate income from electricity in order to make energy systems financially sustainable. This learning shaped the next phase of Gham Power's innovation, and led to the development of the **"Off-GridBazaar"**, a platform for smallholder farmers that recorded agricultural data and matched farmers with appropriate financing. The platform later evolved into the **SuperKrishak App**, an AI-powered agricultural advisory tool that provides farmers with tailored agronomic advice.



THE INDUSTRIAL PIVOT

Nepal's electricity landscape has changed dramatically since 2010. The Nepal Electricity Authority (NEA) has made significant progress in meeting household demand, with approximately 98% of Nepal's electricity today generated from hydropower.

Yet industrial users continue to face serious supply challenges. Most hydropower plants are located far from major consumption centres, so electricity has to travel long distances over transmission networks constrained by the country's mountainous terrain. Hydropower generation is also highly seasonal: Nepal is able to export surplus power during the monsoon but faces shortfalls in dry months. Industries bear the brunt of these shortfalls.



INDUSTRIAL
SUPPLY GAP



HIGH DIESEL
DEPENDENCY



HIGH COST
& CARBON



IMPACT ON
TRADE DEFICIT

As a result, many factories and manufacturing facilities still rely on diesel generators to maintain operations, which is an expensive, carbon-intensive dependency that contributes significantly to Nepal's trade deficit.

Consequently, Gham Power has pivoted its core strategy to address precisely this industrial gap. By installing rooftop and on-site solar systems at industrial facilities, the company enables manufacturers to replace diesel generation with affordable, clean solar power, improving energy reliability and their bottom lines while reducing environmental harm.



BUILDING SOLAR ARCHITECTURE FOR THE ECOSYSTEM

Gham Power's integrated approach strengthens Nepal's solar energy ecosystem from installation to innovation, financing, and digital empowerment.



Gham Power Nepal Pvt. Ltd.

Core entity responsible for solar installation, project development, and after-sales maintenance across commercial, industrial & institutional clients.

Execution & Delivery



Gham Urja Sewa (GUS)

Sister entity managing renewable energy funds and owning solar assets that generate clean, transparent returns for investors.

Investment & Ownership



The SuperKrishak App

AI-powered advisory app delivering personalized agronomic guidance, empowering farmers and advancing Nepal's agricultural economy.

Digital Empowerment



Power Purchase Agreement (PPA) Model.

Enables clients to adopt solar with zero upfront cost. We install, own & maintain the system-clients pay only for the electricity they use.

Smart Financing

HOW IT WORKS



Assess & Design

Understand client needs and design customized solar solutions.



Install & Own

We install, own and maintain high-quality solar systems.



You Use & Pay

You pay only for the electricity you use - simple and affordable.



Sustainable Growth

Lower costs, clean energy & stronger communities for better tomorrow.

THE ROAD TO ALTERNATIVE FINANCING

When Gham Power first started, Nepal's solar sector was largely subsidy-driven. Many companies relied on government grants to operate, and bank financing was difficult to secure. Lenders demanded personal guarantees or buy-back commitments before approving loans. Access to capital was a fundamental constraint on growth. The company had to navigate this financing desert through creativity and persistence.

The breakthrough came when ‘Put Your Money Where Your Mouth Is’ (PYMWYMI) provided the first external seed funding, in 2013. This vote of confidence from an impact-focused investor established Gham Power’s credibility and laid the foundation for subsequent fundraising. As the sector matured and solar technology became more established, the financing landscape shifted. Today, Nepal’s solar market is predominantly driven by private finance, attracting both domestic and international capital.

At that time, Nepal Rastra Bank and commercial lenders offered little help for companies seeking to adopt solar energy without large upfront capital, so the power purchase agreement (PPA) model introduced by Gham Power proved particularly transformative in addressing the financing gap for clients, turning a capital-intensive transition into an operationally seamless upgrade for industrial clients.

In the early years, impact investors were the first to step in, providing the patient capital needed to establish initial traction and validate the service model in a nascent market. With proof of concept established, banks followed, extending debt to support project expansion and help the company begin to scale. Yet further growth demanded more than debt alone, and additional equity was needed to strengthen the balance sheet and unlock the next phase of financing.



This is where commercial local equity was raised, a milestone that not only brought in new capital but also signalled market confidence and enabled the company to access greater debt on improved terms. Investment from private equity funds continues to be part of this evolving capital stack, as a reminder that getting the right form of capital at the right time is as important as the capital itself.



Private equity and venture capital proved far superior to bank financing for Gham Power’s model. Banks demanded collateral the company simply did not have at scale. Impact investors, by contrast, understood the business model, had greater risk appetite, and required no collateral.

— Gham Power

PARTNERSHIP WITH ONE TO WATCH

When One to Watch (OTW) first invested in Gham Power in 2015, Nepal was in the grip of a severe load-shedding crisis. It was precisely this context that made Gham Power's proposition compelling: a company with a genuine focus on R&D, a deep understanding of Nepal's energy challenges, and a vision of distributed solar as a structurally transformative solution and not merely a quick fix. The potential for microgrids, agricultural applications and commercial energy independence made Gham Power a natural fit for OTW's investment mandate.



OTW's engagement has been channelled through two funds: **The Nepal Impact Investment Community (NIIC) fund** applies a dual lens of appropriate financial returns alongside meaningful social or environmental impact. Gham Power met these criteria clearly by expanding access to electricity, displacing diesel generators, increasing agricultural productivity through solar-powered pumps, and generating employment. The **Off-Grid Renewable Energy (ORE) fund**, mandated specifically for solar energy investment, co-established Gham Urja Sewa in 2022 as a joint venture with Gham Power, deploying commercial and industrial solar projects under the PPA model.

Gham Power attracted capital from OTW through investment rounds in 2016, 2019 and 2022. But beyond the capital itself, OTW added substantial non-monetary value in the form of regular strategic planning sessions, financial modelling support, industry connections and capacity-building. These relationships pushed Gham Power to develop stronger governance, legal compliance, risk management and internal standards – which ultimately made the company more professional and investable.

A pivotal early fundraising moment reflected OTW's creative approach: a mountain biking trip through the Annapurna region for high-net-worth impact investors. Rather than a conventional financial pitch, the team told the story of how solar power could transform communities along the Annapurna Circuit, bringing light, economic opportunity and resilience to remote villages. This narrative-first, impact-forward approach proved far more compelling and helped secure critical early international funding.



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Gham Power's deep technical expertise, combined with a demonstrated willingness to evolve and pilot solutions in response to changing market realities, has been central to its progress. An entrepreneurial approach to R&D and renewable energy solution development and disciplined execution, combined with strengthened governance, robust financial structuring and strategic guidance supported by One to Watch, have enabled the company to build a resilient platform over the years. It is now well-positioned to capture significant opportunity in a market in which energy demand is growing and the potential for renewable and climate-focused solutions has never been greater.

— One to Watch

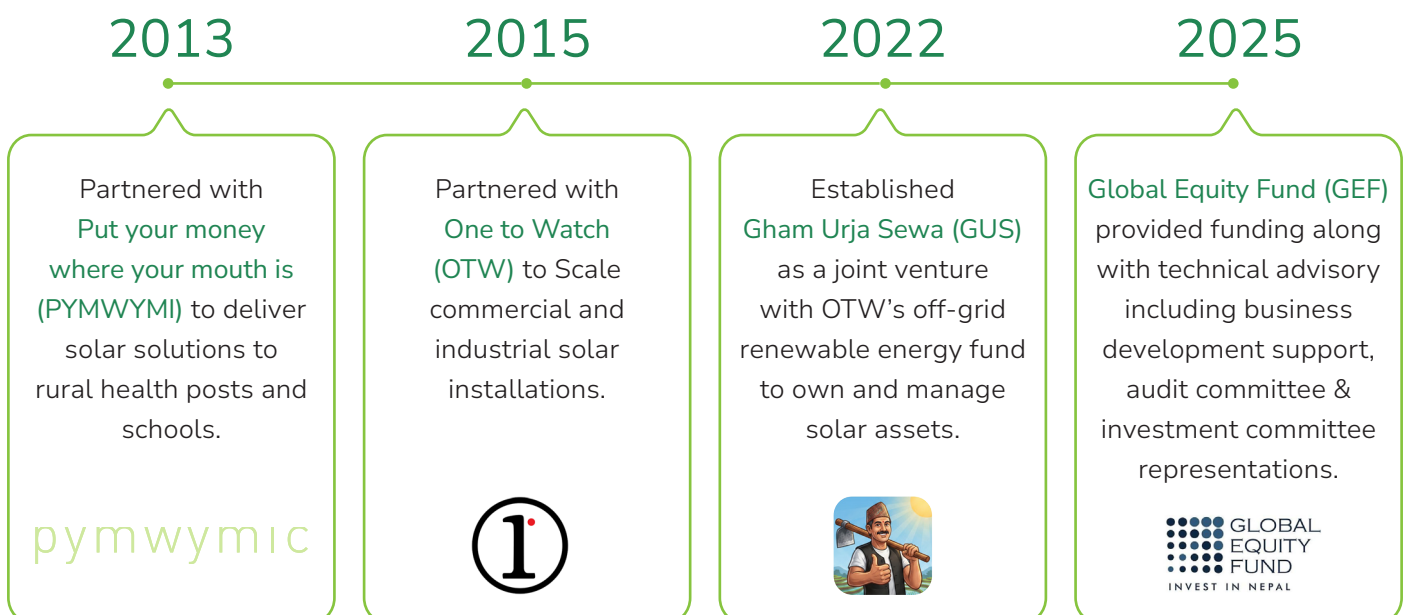
PARTNERSHIP WITH GLOBAL EQUITY FUND

The Global Equity Fund (GEF)'s decision in April 2025 to invest through its **Nepal Infrastructures Investment Fund** was grounded in a clear alignment of values and opportunity. Nepal's distributed solar space is still fragmented and dominated by off-grid systems, which represents exactly the kind of energy transition GEF seeks to support. What drew GEF specifically to Gham Urja Sewa was the company's operational maturity, the strength of the existing joint venture structure and, above all, its transparency in governance and reporting.

In addition to capital, GEF's involvement has extended to technical advisory, marketing and business development support, further fund-raising, and active participation in the company's investment and audit committees. This hands-on engagement reflects GEF's broader philosophy: in markets like Nepal, the value of a good investor is measured not in the cheque alone but in the institutional knowledge and networks that come with it.

FINANCING & INVESTMENT JOURNEY

Gham Power's growth has been powered by strategic partnerships and innovative financing models.



THE ROAD AHEAD

Gham Power's near-term strategy is anchored in innovation and adaptability. Its key priority is to extend battery storage capacity, which would enable solar energy to be used beyond daylight hours and would expand the addressable market. The company is already making progress on this front, including collaborating with the United Nations on a 4 MW battery development initiative. The 2025 removal of the policy cap limiting solar energy's share of the grid has opened further possibilities. Gham Power is now actively considering expansion beyond Nepal, while keeping its immediate focus on consolidating its foundation in Nepal.

Realising this ambition will require substantial capital, which will likely take different forms. While distributed solar energy is inherently capital-intensive, the two sides of the Gham ecosystem have meaningfully different risk profiles. Expansion of Gham Urja Sewa's portfolio, deploying proven technology across new geographies and customer segments, is asset-backed and relatively predictable, and requires capital that is closer in character to infrastructure investment. Meanwhile, Gham Power's work on technology R&D, battery storage integration, grid innovation and next-generation distribution systems is genuinely ground-breaking, and demands more patient capital and a higher tolerance for uncertainty.

This distinction defines the opportunities for Private Equity and Venture Capital (PEVC) investors. Growth equity partners can back Gham Urja Sewa's scaling with confidence in the underlying fundamentals and in its established service model. Venture and impact-first investors can support Gham Power's R&D journey, accepting higher risk in exchange for greater influence on how the sector evolves. As the technology matures and de-risks, the two sides of the capital stack naturally converge, with today's innovation becoming tomorrow's investable infrastructure. Getting the right capital to the right part of the business at the right time is not just a financial consideration; in a market like Nepal, it is a strategic imperative.

On the policy front, Gham Power's relationship with government has shown meaningful progress, as it advocates for decentralised energy markets, attractive Power Purchase Agreements for battery storage, and clear legal frameworks built on deep technical expertise. Its broader vision is captured in a simple phrase: 'Power to the People'. The company believes the gap between energy consumers and energy generation should be fundamentally reduced, making distributed energy something every household, business and community can participate in. Together, Gham Power and its investment partners are writing a new chapter in Nepal's energy story: one defined not by scarcity, but by abundance, resilience and equity.



Gham Power and Gham Urja together are a demonstration of what patient, values-aligned capital can achieve in a market still finding its footing.

— Global Equity Fund



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