


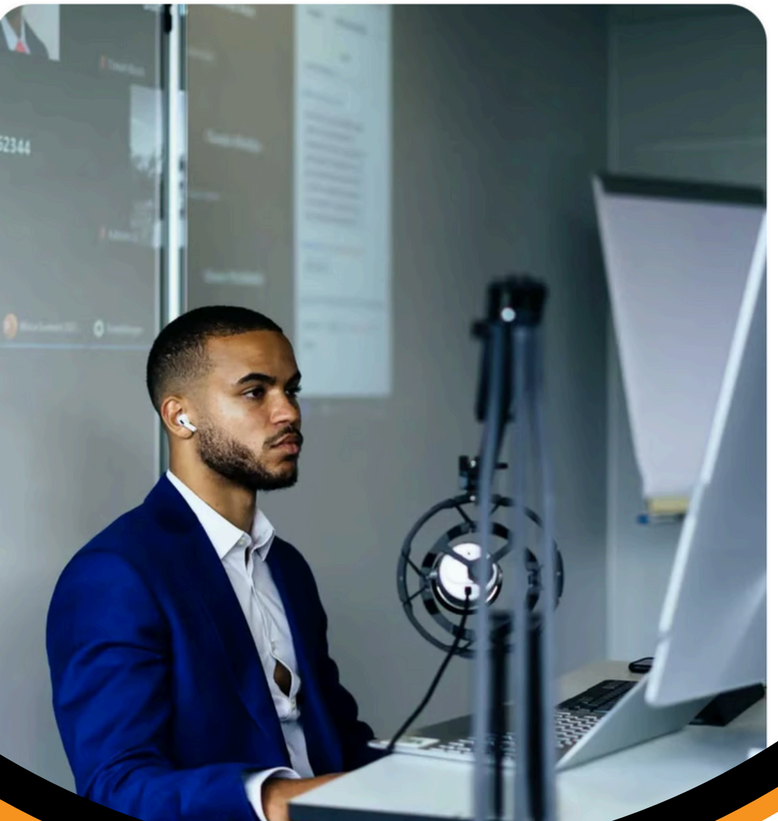

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# PROJECT RENEWSSANCE

Project Report & Research Findings

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# Table of contents

# About this report

This report is the outcome of the Solar Knowledge Exchange Project, a joint initiative launched by members of the Africa Association at the University of St. Gallen. The project was created to explore practical, field-based insights in the solar energy sector by fostering dialogue and collaboration between solar companies in Switzerland and Sub-Saharan Africa.

Rather than focusing solely on abstract policy or technology, the project aimed to understand how solar businesses actually operate, where they struggle, where they innovate, and how they envision meaningful cross-border partnerships. To do this, we conducted in-depth interviews with founders, engineers, and executives from companies across both regions — each offering unique perspectives shaped by their market, their mission, and their lived experience.

This report is divided into several key sections:

- A market overview and comparative analysis that examines the structure, challenges, and growth dynamics of the solar sectors in Switzerland and selected African countries.
- A series of company spotlights, presenting qualitative findings from interviews and offering direct insight into business models, customer engagement, technological adaptation, local strategy, community involvement and sustainability issues .
- Thematic sections highlighting shared trends, strategic approaches, and collaboration opportunities, culminating in tailored recommendations for companies and institutions on both sides.

The purpose of this report is not only to document how solar companies work — but to catalyze insight-driven collaboration across two regions facing different, yet increasingly converging, energy challenges. Through practical case studies, market analyses, and policy context, it serves as a foundation for continued dialogue, peer learning, and strategic engagement.

The findings captured here will form the basis of a structured knowledge-sharing initiative that connects African and Swiss solar professionals through curated insights, practical tools, and evolving platforms for growth. As solar adoption accelerates globally, platforms that bridge operational realities and market entry strategies are vital — and this report is designed to be the first step in that long-term direction.

# Market Overview

**Global Renewable Energy Markets**

In response to the climate crisis, most countries have committed to a global energy transformation — shifting away from fossil fuels toward renewable energy sources. As worldwide GDP and population levels continue to rise, global energy demand is projected to increase by 18% through 2050, with emerging economies contributing the most to this growth. Within this shift, electricity is set to become the dominant energy carrier, surpassing all other sources in demand by mid-century.

The disparity in demand growth is especially stark between continents: while Europe's overall energy demand is expected to decline, Africa's is projected to grow at a compound annual rate (CAGR) of 1.0%, reflecting both its demographic momentum and its need to expand basic infrastructure.

Within the renewables segment, solar energy is emerging as the central pillar of this transformation. By 2050, solar PV is expected to generate between 15,000 and 30,000 TWh, driven by a CAGR of 12%. Several trends underpin this exponential growth:

- The continuing decline in hardware costs, particularly for panels and inverters.
- Increasing flows of private equity and climate finance into solar infrastructure.
- Streamlined permitting and policy liberalization in several key markets, making it easier to launch commercial and industrial solar projects.

Despite this positive trajectory, several structural challenges remain. One of the most pressing is the dependency on critical minerals such as lithium, cobalt, and rare earth elements — materials essential for solar panels, batteries, and power electronics. Many of these minerals are sourced from a limited number of countries, leading to supply chain vulnerabilities, geopolitical risk, and environmental concerns related to mining practices.

Other key barriers include:

- Grid integration challenges, especially in countries with aging infrastructure.
- Intermittency issues, which require advances in storage and hybrid systems.
- Uneven policy support, with frequent regulatory shifts undermining investor confidence.
- A growing gap in technical capacity in developing regions, which affects system quality, safety, and long-term performance.

In this context, solar power is both a technological solution and a policy challenge — requiring coordinated innovation, cross-border collaboration, and scalable, inclusive financing models to fulfill its promise as the backbone of the future global energy system.

As the complexity of global solar markets increases, access to timely, curated, and context-specific information has become a competitive advantage. Companies across both Africa and Europe increasingly require not just technical products, but business intelligence — actionable insight into market entry conditions, regulatory change, and operational best practices.

This growing need is giving rise to the emergence of solar-specific knowledge platforms, with some focusing on policy updates, others on technical standards, and some on matchmaking between developers and financiers. However, few initiatives combine field-based insight with market analysis and tailored operational tools for small and mid-sized companies. The Solar Knowledge Exchange Project aims to help close that gap — starting from the insights gathered in this report and extending into future resources, playbooks, and collaborative spaces.

# Market Analysis Switzerland

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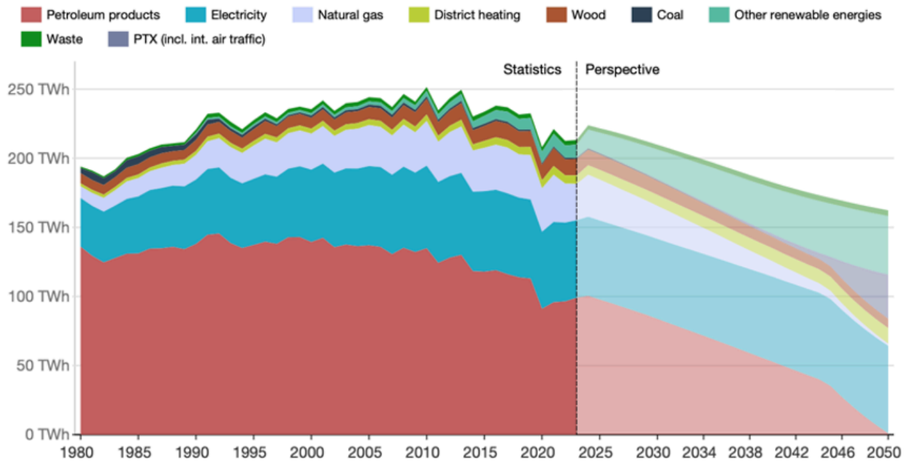
## Political

Switzerland's energy policy is guided by the Energy Strategy 2050, aiming to reduce energy consumption, enhance energy efficiency, and promote renewable energy sources. Additionally, the Energy Strategy 2050 highlights the broad consensus for phasing out nuclear power. The strategy sets a goal of achieving net-zero greenhouse gas emissions by 2050. Switzerland can be seen as an unusual example due to its federalism and cantonal independence, which creates uneven progress across regions. Since 2009, operators of solar, wind, geothermal, and biomass power plants have been able to apply for a feed-in tariff nationally. However, most producers now sell their electricity directly on the market, and new applications were only accepted until the end of 2022. The introduction of a feed-in tariff system and market premiums demonstrates government intervention to support renewable energy. In September 2023, the Swiss Parliament, with strong support from the Green Party and Social Democrats, passed legislation to strengthen energy security by expanding domestic renewable electricity production, with binding targets for reducing energy consumption. This legislation is scheduled to come into effect in 2025. Although we can see some remarkable improvement in terms of climate policies, one part of the parliament, usually represented by the Swiss People's Party (conservative), remains very skeptical and opposed to the strategy. The Swiss government has demonstrated a strong commitment to renewable energy, particularly solar power. By the end of 2023, solar photovoltaic capacity had reached 6.4 GW, up from 0.1 GW in 2010, contributing approximately 5.9% to the country's electricity generation. Projections suggest that, if current trends continue, solar power could supply 50% of Switzerland's annual electricity consumption by 2050. The political environment in Switzerland is generally stable and supportive of long-term investments in solar energy.

However, challenges such as lengthy approval processes and administrative bottlenecks can delay renewable energy projects, potentially impacting the achievement of climate targets and energy security. Additionally, public opposition based on environmental and aesthetic concerns has led to the rejection of certain large-scale solar projects, indicating that social acceptance plays a crucial role in the deployment of renewable energy infrastructure. In summary, while Switzerland's policies and targets create a favourable environment for solar energy investments, addressing administrative hurdles and ensuring public support are essential for the timely realization of these projects.

**Switzerland's Energy Consumption by Carrier: Historical Trends and Net-Zero 2050 Projections**




*THIS CHART SHOWS SWITZERLAND'S FINAL ENERGY CONSUMPTION BY SOURCE FROM 1980 TO 2022 (LEFT SIDE, UNDER "STATISTICS") AND THE PROJECTED DEVELOPMENT THROUGH 2050 (RIGHT SIDE, UNDER "PERSPECTIVE"), ALIGNED WITH THE ENERGY STRATEGY 2050*

# Market Analysis Switzerland

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## Economic

Switzerland offers a promising economic environment for solar energy investments, supported by a range of financial incentives and policy tools aligned with its Energy Strategy 2050. Rather than relying solely on market forces, the Swiss government actively supports the transition through investment contributions, allowing both households and businesses to receive one-time payments that cover a portion of installation costs for photovoltaic (PV) systems. These subsidies are complemented by tax deductions and growing access to low-interest green loans, making solar power increasingly accessible across sectors. As traditional feed-in tariffs have been phased out, new support mechanisms—such as direct marketing and potential auction systems—are being introduced to encourage larger-scale solar projects. These evolving models reflect Switzerland's preference for combining environmental goals with economic efficiency. At the same time, market dynamics play a crucial role. The recent surge in global energy prices has made solar power more financially attractive, especially for those looking to reduce long-term electricity costs through self-consumption. However, inflation and supply chain disruptions have led to higher upfront costs for materials and installations, creating uncertainty for some investors. Despite these challenges, the long-term economic case for solar energy in Switzerland remains strong. By investing in solar, individuals and companies not only contribute to climate goals but also reduce dependence on imported energy—an increasingly valuable advantage in an unpredictable geopolitical landscape. In this context, solar energy is not just an environmental choice, but a smart financial strategy for the future.

# Market Analysis Switzerland

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## Social

Switzerland has a deeply rooted cultural appreciation for environmental responsibility and sustainable living, which positively shapes public attitudes toward solar energy. Across the country, there is a strong societal awareness of the need to transition to cleaner energy sources, and solar energy is widely seen as a natural extension of this mindset. However, despite broad support, the adoption of solar energy varies significantly between regions. Social factors such as population density, local community values, and levels of social interaction play a key role in these differences. In urban areas, where people are more exposed to visible solar installations and conversations around sustainability, social influence tends to accelerate adoption. Community initiatives, shared experiences, and peer encouragement often contribute to a stronger momentum for change. In contrast, rural regions may adopt solar energy more slowly—not due to lack of interest, but because the social dynamics are different. With fewer points of contact and a less concentrated population, new ideas and technologies may take longer to spread. Here, the role of trusted local voices, word-of-mouth, and community-based education becomes crucial in shaping perceptions and encouraging action. These regional differences highlight the importance of socially attuned strategies. In cities, initiatives that build on existing networks and foster public visibility can be especially effective. In less populated areas, it’s more impactful to focus on community engagement through personal connections, local events, and storytelling that resonates with residents' daily lives.

## Technological

Switzerland's technological infrastructure for solar energy is well-developed, particularly in grid-connected systems. Ranked first on the Global Innovation Index, Switzerland clearly excels in technological progress. The country's robust national grid facilitates the seamless integration of solar photovoltaic (PV) installations, enabling surplus energy from residential and commercial solar systems to be fed back into the grid. This process is further supported by policies designed to encourage renewable energy adoption and enhance energy efficiency. Off-grid solar solutions are less prevalent in Switzerland due to the extensive reach of the national grid. However, they play a crucial role in remote areas where grid extension is impractical, providing reliable electricity through standalone solar installations. Mini grids, which combine multiple energy sources to supply localized power, are not yet widely adopted but are gaining attention as a means of enhancing energy resilience and sustainability. Local innovations are playing a significant role in making solar energy more affordable and efficient. Swiss companies such as Insolight have developed advanced solar panels utilizing planar optical micro-tracking technology. This innovation concentrates sunlight onto high-efficiency solar cells without requiring panel tilting, making high-performance solar technology more cost-effective. Another notable development is the use of removable solar panels on railway tracks, which maximizes space utilization and contributes additional renewable energy to the grid. Furthermore, data-driven approaches are optimizing solar energy production. In conclusion, Switzerland has a well-established technological infrastructure for solar energy, particularly in grid-connected systems. While off-grid and mini-grid applications remain limited, innovative local solutions are continuously improving the affordability and efficiency of solar energy, supporting the country’s transition toward a more sustainable future.

# Market Analysis Switzerland

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## Environmental

Switzerland stands out in managing the environmental impacts of solar energy due to its strong regulatory framework, advanced recycling infrastructure, and integration of solar power into its broader sustainability strategy. Unlike many countries, Switzerland benefits from a decentralized energy system that promotes localized solar production, reducing transmission losses and land-use conflicts. Additionally, its circular economy approach ensures that end-of-life solar panels are efficiently recycled, preventing toxic waste accumulation and recovering valuable materials like silicon and silver. What sets Switzerland apart is its long-standing environmental governance. Policies such as the $CO_2$ Act and the Energy Strategy 2050 provide a clear roadmap for reducing emissions while expanding renewable energy. Unlike nations that rely heavily on subsidies alone, Switzerland combines financial incentives with strict ecological standards, ensuring that solar expansion does not come at the cost of environmental degradation. The country's emphasis on research and innovation, supported by institutions like ETH Zurich, further enhances the efficiency and sustainability of solar technologies. For solar companies, this creates a unique advantage: operating in Switzerland means aligning with a well-regulated, innovation-driven market that prioritizes long-term sustainability. Companies that invest in high-efficiency panels, recyclable materials, and energy storage solutions will find Switzerland an ideal environment for growth while contributing to global climate goals.

## Legal

Switzerland's legal landscape for solar energy is defined by a structured yet innovation-friendly regulatory framework. The Energy Act (Energiegesetz) and the $CO_2$ Act set the foundation for solar installations, ensuring that projects align with the country's carbon neutrality goals. Building permits are generally streamlined for rooftop solar, especially for small-scale installations, while large solar farms must comply with zoning laws and environmental impact assessments. Compliance with the Swiss Building Code (SIA standards) ensures structural safety and efficiency, while grid connection regulations set by the Swiss Federal Electricity Commission ensure fair and transparent access to the energy market. Despite Switzerland's supportive regulatory environment, legal barriers to market entry and expansion remain. Lengthy approval processes for large-scale solar farms, strict environmental protection laws (especially in alpine and agricultural areas), and grid congestion in some regions pose challenges for developers. Additionally, navigating cantonal and municipal regulations can be complex, as local authorities have varying requirements. However, policies like the feed-in tariff system (KEV) and investment incentives create financial opportunities for companies willing to navigate these legal intricacies. For solar companies, success in Switzerland requires strategic compliance and local partnerships. Understanding regional permitting laws, aligning with sustainability standards, and leveraging government incentives can help businesses scale efficiently. By proactively addressing regulatory hurdles, companies can position themselves as key players in Switzerland's growing solar energy sector.

# Market Analysis Africa

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## Political

Africa's growing commitment to renewable energy presents significant opportunities for solar companies. In Kenya, key policies such as the National Energy Policy (2025–2034) and the Kenya Energy Transition & Investment Plan (ETIP) 2050 provide a framework for expanding the solar sector. The National Electrification Strategy (KNES)supports off-grid solar solutions, creating a viable market for companies specializing in solar home systems and mini-grids. Additionally, tax incentives, feed-in tariffs, and public-private partnership initiatives across Africa—aligned with the African Union's Agenda 2063—offer solar companies potential revenue streams and investment security. Political stability plays a crucial role in shaping the business landscape for solar energy firms. In politically stable environments like Kenya, clear regulatory frameworks, streamlined licensing processes, and strong institutional support reduce investment risks. The presence of agencies such as the Energy and Petroleum Regulatory Authority (EPRA) ensures transparent market operations, benefiting solar companies seeking to scale operations.

Conversely, political instability can present major challenges. Countries with unpredictable policy shifts, weak governance, or conflict may pose risks such as regulatory delays, inconsistent enforcement of contracts, and difficulties in securing long-term financing. Corruption in some markets can also create barriers, leading to unfair competition and misallocation of funding meant for solar projects. For solar companies, understanding these political dynamics is key to strategic planning. Firms should prioritize markets with stable governance, clear investment incentives, and government-backed solar initiatives. Engaging with policymakers, staying informed on policy changes, and building local partnerships can further mitigate risks and enhance market penetration. By aligning with national energy strategies and leveraging available incentives, solar companies can maximize opportunities while navigating potential political challenges in Africa.

## Economic

The financial landscape for solar energy in Africa is shaped by a variety of funding models, each offering distinct opportunities and challenges for solar companies. Public-private partnerships (PPPs) play a key role, allowing companies to collaborate with governments to deploy large-scale solar projects with shared investment risks. Additionally, development finance institutions (DFIs) such as the African Development Bank (AfDB) and the World Bank provide concessional loans and grants that reduce capital costs. Microfinancing and pay-as-you-go (PAYG) models have revolutionized the off-grid solar market, making it easier for consumers to afford solar home systems while ensuring steady cash flow for companies.

However, economic volatility remains a significant challenge for solar businesses. Currency fluctuations can erode profit margins, especially when equipment and financing are sourced in foreign currencies while revenue is collected in local currencies. Countries with high inflation and unstable exchange rates pose a greater risk to long-term solar investments. Additionally, high interest rates and limited access to affordable financing can deter small and medium-sized solar enterprises from expanding operations.

For solar companies, mitigating these risks requires strategic financial planning. Firms should consider hedging against currency risks, securing financing in local currencies when possible, and diversifying revenue streams across multiple markets. Partnering with local banks and leveraging blended finance mechanisms—such as combining grants with commercial loans—can also improve financial resilience. By aligning business strategies with sustainable financing models and economic trends, solar companies can enhance their competitiveness in Africa's dynamic energy market

# Market Analysis Africa

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## Social

Public support for solar energy in Africa is heavily influenced by the region's energy access challenges. Over 600 million people in Africa lack reliable electricity, making solar a key solution for rural electrification. The demand for affordable and sustainable energy is growing, and governments, NGOs, and international donors are actively supporting solar adoption. Companies operating in this space can capitalize on the strong social demand by offering affordable, decentralized solar solutions tailored to low-income populations.

Community-driven solar initiatives are proving to be successful models for expanding energy access. In Kenya, projects like the M-KOPA Solar Pay-As-You-Go (PAYG) model have enabled households to access solar power through flexible payment plans. Similarly, cooperative solar projects, where communities collectively invest in solar infrastructure, have been emerging in several African nations. These models reduce costs and improve local ownership, fostering long-term sustainability.

For solar companies, understanding social dynamics is essential for market penetration. Aligning business models with local needs—such as offering microfinancing, leasing options, or partnerships with community-based organizations—can drive adoption rates and strengthen brand loyalty. Additionally, companies should invest in awareness campaigns and training programs to educate communities on the benefits of solar energy, ensuring long-term customer engagement and market expansion.

## Technological

The technological infrastructure for solar energy in Africa is rapidly evolving, presenting both opportunities and challenges for solar companies. In Kenya, a mix of grid-connected, off-grid, and mini-grid solutions supports solar deployment. The national grid is expanding, but rural areas still rely heavily on off-grid solar systems. The government has introduced policies to integrate more renewable energy into the national grid, creating opportunities for utility-scale solar projects. However, grid instability and transmission inefficiencies remain concerns, affecting the viability of grid-connected solar investments.

Off-grid and mini-grid solutions are key growth areas, particularly in remote communities where traditional grid expansion is costly. Companies offering solar home systems, battery storage, and micro-grid solutions can tap into a growing market with strong demand for decentralized energy access. Advances in mobile payment systems, such as M-Pesa in Kenya, have also facilitated pay-as-you-go (PAYG) solar models, making solar energy more accessible to low-income consumers.

Local innovations are driving cost reductions and increasing affordability. Kenyan startups and research institutions are developing low-cost solar panels, smart metering technologies, and energy-efficient appliances tailored for African conditions. For solar companies, partnering with local innovators and leveraging digital technologies such as IoT-based energy management can improve service delivery and operational efficiency.

To stay competitive, solar companies should focus on adaptable business models that integrate technological advancements, address infrastructure gaps, and align with local market conditions. Investing in battery storage, smart grids, and AI-driven energy optimization can provide a competitive edge in Africa’s evolving solar landscape.

# Market Analysis Africa

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## Environmental

The expansion of solar energy in Africa brings significant environmental benefits but also presents challenges that solar companies must address. One major concern is land use—large-scale solar farms require extensive space, which can lead to conflicts over land rights, especially in agricultural or ecologically sensitive areas. Companies must adopt sustainable site selection strategies, such as using degraded or non-arable land, to minimize environmental and social conflicts.

Solar panel waste management is another growing challenge. As solar installations increase, end-of-life panel disposal will become a major issue. The lack of comprehensive recycling facilities in many African countries means that outdated panels could contribute to electronic waste pollution. To mitigate this, solar companies should explore recycling partnerships, extended producer responsibility (EPR) programs, and second-life applications for aging solar components.

Despite these challenges, solar energy remains a critical tool for climate change mitigation in Africa. Kenya, for instance, has set ambitious targets to increase renewable energy's share in the national grid, reducing reliance on fossil fuels. By replacing diesel generators and kerosene lamps, solar energy significantly cuts carbon emissions and improves air quality. Additionally, off-grid solar solutions contribute to deforestation reduction by providing an alternative to wood and charcoal for lighting and cooking.

For solar companies, integrating environmentally responsible practices into their operations—such as eco-friendly panel manufacturing, battery recycling initiatives, and sustainable land-use planning—can enhance brand reputation and align with growing consumer and regulatory demand for green energy solutions. By positioning themselves as leaders in sustainable development, solar businesses can attract investors, partners, and customers who prioritize environmental responsibility.

## Legal

In Africa, solar energy development and foreign investment are shaped by a complex mix of legal frameworks, including national renewable energy policies, investment laws, electricity regulations, and regional initiatives such as the African Union's Agenda 2063 and regional power pool agreements. However, this regulatory complexity often results in excessive bureaucracy and fragmentation. In contrast, Switzerland benefits from a more streamlined regulatory system with clear sustainability goals, allowing for a more efficient energy transition. International frameworks, including bilateral investment treaties (BITs) and multilateral agreements like the African Continental Free Trade Area (AfCFTA), also support cross-border investments and provide protections to investors. Permitting processes frequently pose substantial challenges across African countries. Administrative complexities, bureaucratic inefficiencies, and overlapping jurisdictions often delay project approvals. In addition, regulatory transparency and consistency can vary significantly, creating uncertainty for investors and developers. Land rights present considerable challenges, as securing clear and enforceable land tenure can be complex. Issues such as unclear land titles, customary land ownership systems, and disputes with local communities over land use rights often result in project delays and increased risks for solar energy investors.

Tariff structures and pricing policies also represent significant hurdles. Many African countries lack stable and predictable tariff regulations, affecting the financial viability of solar energy projects. Frequent adjustments, inconsistent enforcement of tariffs, or delays in implementing feed-in tariffs (FiTs) and competitive bidding processes can deter investors. Stable, transparent tariff policies and effective enforcement mechanisms are essential to attract sustained foreign investment and support renewable energy expansion. Resolving these legal and regulatory challenges is critical to promoting solar energy development and enhancing the attractiveness of Africa for foreign investors in renewable energy.

# Summary Market Analysis

Switzerland and Sub-Saharan Africa represent two contrasting but increasingly interconnected arenas for solar energy development. In Switzerland, the Energy Strategy 2050 has laid out a clear roadmap to reduce energy consumption, enhance efficiency, and promote renewables, with the ambitious goal of reaching net-zero greenhouse gas emissions by mid-century. This strategy has led to impressive growth in solar capacity—from just 0.1 GW in 2010 to 6.4 GW by the end of 2023—demonstrating strong governmental commitment and widespread public support. Yet, despite generous subsidies, tax incentives, and innovation-driven policy frameworks, challenges such as complex permitting procedures, cantonal disparities, and local opposition to large-scale projects remain barriers to faster progress. Nonetheless, Switzerland's stable political environment, advanced technological infrastructure, and mature grid systems provide a solid foundation for continued investment and innovation in solar energy.

In Sub-Saharan Africa, and particularly in countries like Kenya, the solar energy narrative is shaped by a different set of priorities—chiefly the urgent need for universal energy access. Here, policy frameworks such as Kenya's Energy Transition and Investment Plan (ETIP 2050) and the African Union's Agenda 2063 are driving national and continental commitments to renewable energy. Off-grid and mini-grid solutions dominate, supported by mobile payment innovations like M-Pesa and business models tailored to low-income consumers. The financial landscape is equally dynamic, with public-private partnerships, development finance, and pay-as-you-go models offering diverse entry points for companies. Yet legal fragmentation, uncertain tariff policies, and land tenure complications continue to present serious obstacles. Economic volatility—including inflation, currency risks, and financing constraints—further complicates long-term investment.

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in both regions, social and cultural dynamics significantly influence adoption. In Switzerland, densely populated urban areas with visible solar infrastructure and sustainability-focused discourse show higher uptake, while more rural regions benefit from personal outreach and community engagement. In African contexts, the social fabric is defined by the immediate utility of solar as a tool for development—substituting polluting diesel generators and kerosene lamps, and supporting education, health, and economic inclusion. Community-driven solar models, awareness campaigns, and local partnerships are proving especially effective in building trust and ensuring sustainability.

Technological innovation remains a common thread across both regions. Swiss firms are advancing high-efficiency panel designs and circular economy solutions, while African innovators are developing low-cost, smart, and modular technologies suited to decentralized energy access. Despite different starting points and market structures, both ecosystems are converging on the realization that solar energy is more than a climate solution—it is a catalyst for economic resilience, energy security, and social empowerment.

To build on these broader insights, the following section—Insights from the Field—presents grounded case studies of solar companies operating in Switzerland and Sub-Saharan Africa. Based on in-depth interviews, these profiles illuminate how broader market and policy trends translate into day-to-day strategic decisions, operational models, and collaborative opportunities. This real-world perspective is key to identifying blind spots, uncovering synergies, and supporting the project's core goal of knowledge exchange and bridge-building between regions navigating distinct, yet increasingly aligned, energy futures.

# Insights from the Field

To complement the preceding market overviews and PESTEL analyses, this section provides a grounded look at how solar companies in Switzerland and Sub-Saharan Africa operate, strategize, and adapt in their unique environments. Based on in-depth interviews, each profile offers not only a snapshot of the company itself but also valuable insight into real-world challenges, strategic thinking, and collaborative potential.
These case studies are designed to go beyond the abstract. They give voice to founders, technical experts, and executives, revealing how the broader trends outlined earlier — such as financing barriers, infrastructure gaps, or regulatory shifts — play out in daily business practice.
Each company profile is organized into four key dimensions that serve the project's core goal of knowledge exchange and collaboration-building:

**Company Overview**

A concise introduction to the company's founding, mission, and operational focus. This helps contextualize its place within the broader energy ecosystem and sets the stage for understanding its perspective.

**Market View – Local & International Perspectives**

This section captures how companies perceive their home markets (e.g., Kenya, Ethiopia, Switzerland, Cameroon and Togo) and how they view their counterpart region. These reflections are crucial for identifying blind spots, misconceptions, or areas where cross-regional insight could add value.

**Business Model, Value Proposition & Challenges**

A concise introduction to the company's founding, mission, and operational focus. This helps contextualize its place within the broader energy ecosystem and sets the stage for understanding its perspective.

**Perceived Potential for Collaboration**

Finally, each company reflects on where and how collaboration makes sense — from technology transfer and joint ventures to co-investment and mentorship. This directly informs future matchmaking, pilot initiatives, or project spin-offs within the Solar Knowledge Exchange framework.

ABy structuring each profile consistently, we aim to make patterns visible while preserving the unique voice and context of each company. These insights will support practitioners, researchers, and policymakers in identifying leverage points for cooperation — and building bridges between two regions with shared challenges and complementary strengths.

# AF Energy

## Company Profile

Afenergy is a Kenyan renewable energy SME founded two years ago, specializing in solar energy installations for both institutional and retail clients. The company was born out of a need for technical clarity in off-grid transitions, especially among communities unfamiliar with solar system requirements. It operates as a contractor, sourcing solar hardware from local distributors rather than importing directly. Afenergy has grown organically through strong networks, achieving an annual turnover of ~$300,000 and scaling staff capacity to ~10 technicians and administrative support. Strategic growth has been supported by a newly onboarded investor-director.

## Business Model, Value Proposition & Pain Points

Afenergy focuses on building trust through quality installations, strong after-sales service, and storytelling-driven online marketing. Its hybrid model targets both retail (via social media outreach) and institutional clients (via lobbying and network referrals). Customer satisfaction is key to its reputation, especially in a market affected by poor-quality competition. Major pain points include limited capital for direct imports (due to container-size import requirements), lack of access to tailored financing products, and the negative impact of substandard equipment in the market — all of which hinder rapid scalability.

## Market View – Kenyan & Swiss Energy Landscapes

Afenergy sees Kenya's solar market as booming, driven by unreliable grid power, growing real estate demand for off-grid setups, and a rapidly expanding green financing ecosystem. Local banks and microfinance institutions have begun offering dedicated solar finance products for both installers and end-users. Manufacturers from China are increasingly entering the market via local partnerships.

The Swiss market is not directly referenced, but Afenergy sees European players as capital-rich yet absent from the local value chain. Swiss actors are perceived as having potential for strong impact if they engage through direct investment, partnerships, and presence in Kenya's public-private solar sector initiatives.

## Perceived Potential for Collaboration

Afenergy identifies significant opportunities for Swiss firms, investors, and EPC contractors to participate in Kenya's fast-growing renewable energy sector — especially via PPPs (public-private partnerships) and large-scale generation projects. Swiss financial institutions and PE firms could provide non-conventional capital to support private EPC-led infrastructure projects. On the operational side, collaboration with Swiss tech providers could raise standards and counteract the influx of low-quality products, which currently damages market confidence. Afenergy also welcomes knowledge transfer and capacity-building from Swiss firms to improve quality assurance, particularly in servicing and component selection.

# INNO-NEAT

## Company Profile

Innoneat Energy Solutions is a Kenyan clean energy startup founded by Godfrey, who brings over a decade of experience in the off-grid energy sector. The company focuses on providing solar-powered solutions for basic community needs, such as access to safe drinking water and clean cooking. Flagship innovations include a solar-powered water filtration system and the reuse of lithium-ion batteries to reduce costs. Active since 2022, Innone is currently in the advanced pilot stage and aims to transition to scalable deployment across underserved Kenyan communities.

## Business Model, Value Proposition & Pain Points

Innoneat's model centers around impact-first innovation for last-mile communities. Their unique strength lies in the founder's lived experience and deep sectoral knowledge, which informs their community-driven approach. Solutions are distributed via organized groups (e.g., women's groups) using a Pay-As-You-Go model. Pain points include limited access to capital, high upfront hardware costs (e.g., imported components from China), and a need for external partnerships to move from pilots to scale. The company is currently focused on international fundraising and R&D partnerships (e.g., with UK-based Partners and local universities).

## Market View – Kenyan & Swiss Energy Landscapes

Godfrey highlights Kenya as a continental leader in energy access innovation, with a 75% electrification rate and a dynamic ecosystem enabled by fintech tools like M-Pesa. He notes how Kenya's openness to risk and digital infrastructure has made it a hub for energy tech pilots (e.g., PAYG solar, IoT-enabled microgrids).

In contrast, Switzerland is virtually absent from the African solar innovation space. While German, Dutch, UK, Indian, and US institutions are active funders and partners, Godfrey has never encountered Swiss actors in his 5+ years in the clean energy innovation ecosystem. This suggests untapped potential for Swiss engagement.

## Perceived Potential for Collaboration

Innoneat sees great potential for Swiss-African collaboration, particularly in the areas of R&D, capital deployment, and knowledge exchange. Godfrey urges Swiss players to "just show up" — both virtually and physically — in frontier markets like Kenya, where scalable, high-impact innovations are happening. He suggests that Swiss funding ecosystems could learn from African frugality and agility, while African innovators would benefit from access to Swiss technology, engineering know-how, and financing tools. Community-centered pilot projects and events in Africa could be a concrete starting point for building meaningful partnerships.

# Heizplan AG

## Company Profile

Heizplan AG is a Swiss, family-owned solar and energy solutions provider based in eastern Switzerland, with over 40 years of experience in the industry. With 60+ employees, the company serves a broad range of clients — from single-family homes to large industrial sites — and offers full-service solutions including planning, installation (with AC concession), and system testing. Heizplan also operates in complementary areas such as heat pumps, LED lighting systems, and smart building integration, positioning itself as a holistic energy partner rather than just a PV installer.

## Business Model, Value Proposition & Pain Points

Heizplan differentiates through quality, longevity, and full-service offerings. Their value proposition is built on long-term experience, rigorous adherence to safety standards, and strong local presence. Customer relationships are nurtured through high-quality service and after-sales support. Marketing is localized (media coverage of signature projects) and digital (Instagram, website), often supported by external experts. Challenges include regulatory complexity, infrastructure constraints (e.g., transformer bottlenecks), and shrinking subsidies, which increasingly push the company toward industrial and high-consumption clients for profitable projects.

## Market View – African & Swiss Energy Landscapes

Heizplan operates in a mature, high-compliance market where grid feedback is becoming less attractive due to saturation and limited infrastructure capacity. Winter generation challenges and dynamic pricing are shaping system design toward peak shaving and battery storage integration. The Swiss system is heavily regulated, with tight quality controls — seen both as a burden and a safeguard.

Heizplan is aware of African markets mainly through contrast: they recognize the innovation potential in PAYG models, low-cost deployment, and local partnerships. There's curiosity about how African companies finance consumer systems dynamically — something Swiss firms could explore adapting to segmented markets.

## Perceived Potential for Collaboration

Heizplan sees potential for collaborative learning and structured exchange, especially around financing innovation, cost-efficient system design, and adapting to different regulatory environments. While they are not actively expanding into Africa, they are open to knowledge-sharing, pilot partnerships, and international exposure — particularly through structured networks like the Africa Association. They stress the importance of technical capacity, safety standards, and after-sales service, and would support partnerships where quality is maintained. They also express interest in participating in summits or panels where best practices and market insights can be exchanged across continents.

# Ennos AG

## Company Profile

Ennos AG is a Swiss technology company that designs and distributes solar-powered water pumps tailored for rural and off-grid applications, primarily in emerging markets. With a strong engineering foundation, Ennos focuses on sustainable, low-maintenance, and easy-to-use pumping solutions like the sunlight pump, which enables irrigation and access to clean water without relying on fossil fuels or grid electricity. Their business model is B2B2C, working through local distributors, NGOs, and government programs to reach end users in Africa and Asia.

## Business Model, Value Proposition & Pain Points

Ennos's core value lies in its high-quality, Swiss-engineered product that is built to last in challenging environments. Unlike typical solar water pumps, Ennos's design prioritizes durability, efficiency, and simplicity, making it ideal for remote areas with minimal technical infrastructure. Key challenges include:

- High production costs compared to locally produced or Chinese alternatives even though the product is manufactured in India.
- Financing for end-users (e.g. farmers), which often makes affordability a barrier
- Dependence on reliable and motivated local distribution partners, which can limit reach or consistency in service

To mitigate this, Ennos is exploring pay-per-use models and partnerships with organizations focused on last-mile delivery.

## Market View – African & Swiss Energy Landscapes

Ennos primarily focuses on developing markets, where they see enormous demand for decentralized water access solutions. Their largest presence is in East Africa (e.g. Kenya, Ethiopia) and South Asia (e.g. India). These markets offer opportunities but are also fragmented and infrastructure-poor, requiring deep partnerships and context-specific approaches.

Switzerland, by contrast, is viewed more as a base for engineering and product development rather than a sales market. Karin notes that while Swiss institutions may be risk-averse, their technological quality and precision remain highly valuable — especially in African markets where reliability is critical due to limited support infrastructure.

## Perceived Potential for Collaboration

Ennos sees great potential for collaborations with African solar companies in the form of joint ventures, shared distribution networks, and pilot projects, especially in regions where solar irrigation is growing rapidly. They would welcome partnerships with African companies that understand local customer behavior and have strong community trust — while Ennos contributes technology, training, and quality assurance. Karin also suggests that Swiss-Africa financing partnerships could address affordability barriers, such as through blended finance or donor-supported microcredit schemes, allowing both companies to scale impact sustainably.

# Arclight Energy Ltd.

## Company Profile

Arclight Energy Ltd, founded in 2020, is a Kenyan renewable energy company specializing in commercial and industrial (C&I) solar projects across East Africa. The founders, Bryan (7+ years in renewables, originally a technician) and Oskar Lukose (medical engineer with a passion for sustainability), bring together technical depth and a strong service mindset. Their partnership began through a hospital solar project — a symbol of their shared commitment to community-centered energy solutions. Arclight has since grown into a regional player, delivering integrated systems that combine solar, storage, and grid functionality for clients in healthcare, industry, and public infrastructure.

## Business Model, Value Proposition & Pain Points

Arclight's model is based on full-service engineering, aesthetic and functional system design, and community-driven execution. They differentiate by:

- Prioritizing service quality and customer feedback
- Avoiding future maintenance issues through high design standards and quality materials
- Offering additional services like water, waste, and community involvement (local materials, technician training)
- They've won awards for engineering excellence, yet still face structural barriers:
- Regulatory fragmentation (e.g., license thresholds forcing 999kW caps)
- Lack of accessible financing for both C&I and community-scale projects
- Storage cost burdens and limited use of Pay-As-You-Go financing

## Market View – African & Swiss Energy Landscapes

In Kenya and East Africa, Arclight operates in a highly competitive and evolving landscape with strong government interest but underdeveloped capacity. Regulations in markets like Tanzania are often too restrictive (e.g., mandatory local certifications), hindering growth. Many solar companies push technology that doesn't match market needs.

From a Swiss angle, Arclight has already benefited from a Swiss NGO connection and a Master's-level academic collaboration. Swiss actors are respected for their technical knowledge, process rigor, and funding structures. The team sees room for stronger Swiss visibility in East Africa — particularly in engineering, policy development, and supply chain collaboration.

## Perceived Potential for Collaboration

Arclight believes in mutual knowledge exchange. Swiss companies can learn from Arclight's grassroots segmentation strategies, adaptability, and community integration models. In turn, Arclight welcomes Swiss contributions in:

- Policy modeling and regulatory design
- Technology transfer and manufacturing partnerships
- Innovative finance mechanisms (e.g. PAYG, leasing)
- Joint research and development, with existing connections to institutions in the Netherlands and Tanzania
- Their long-term goal is to become Africa's leading community-focused renewable energy firm, with 3–4 projects per year that blend commercial sustainability with community impact. Arclight is actively seeking Swiss partners to co-develop pilots and scale a blueprint that's already in place.

# Fortium Africa Ltd.

## Company Profile

Fortium Africa Ltd., based in Kenya, is a well-established player in the regional solar energy market. Led by Simon Wandanda, who brings nearly a decade of experience and a strong research-driven approach, Fortium has built a reputation for innovation and reliability in the photovoltaic space. The company specializes in the supply, integration, and distribution of solar energy solutions across East Africa, with a focus on product quality, system optimization, and long-term performance. Fortium's expertise ranges from home installations to large-scale community and institutional energy systems, offering tailor-made solutions designed for both off-grid and grid-connected areas.

## Market View – African & Swiss Energy Landscapes

Fortium operates in an energy landscape defined by growing demand, persistent grid instability, and strong interest in decentralized energy solutions. Their hands-on project management, technical precision, and field research distinguish them in a competitive market where many players struggle with maintenance and adaptability challenges. Fortium's systems are positioned not just to deliver electricity, but to empower development in off-grid and underserved communities.

## Business Model, Value Proposition & Pain Points

Fortium's business model centers on technically sound, application-specific solar solutions with strong research and pilot project foundations. Their value proposition includes:

* Customized solar lighting systems with maintenance-free storage and inverter optimization, designed for seamless operation in both hot and cold climates.
* Solar water pumping systems for irrigation, domestic water supply, and community services, capable of delivering up to 200m³/hr with hybrid capabilities.
* Inverter-based power backup systems, equipped with auto switchovers.
* Solar-powered street lighting, ideal for unlit or off-grid areas, offering safety, aesthetics, and dusk-to-dawn automation.
* Mini-grid development expertise, including demand assessment, community surveys, system design, installation, and maintenance for 20 to 2,000 households.

## Perceived Potential for Collaboration

ortium is actively seeking technical and financial partnerships to scale its mini-grid and solar water pumping operations. Areas for collaboration include:

* Technology co-development (e.g., power electronics, hybrid systems)
* Research-driven product innovation
* Community energy finance models and Pay-As-You-Go systems
* Joint development projects with NGOs, governments, and academia
* Capacity building and local technician training

With its strong operational base and clear social mission, Fortium Africa offers a reliable, impact-oriented partner for international stakeholders looking to co-develop scalable, sustainable energy solutions in East Africa.

# Africa Solar Generation

## Company Profile

ASG – Africa Solar Generation is a solar energy company founded in 2013 with operations primarily in Cameroon and partners in other West African markets such as Ghana. The company began by targeting base-of-the-pyramid markets with solar kits and home installations, but later pivoted to commercial and industrial (C&I) clients due to greater payment reliability and long-term business viability. ASG's focus today lies in designing and installing solar systems for institutions and businesses, with ongoing efforts to structure tailored financing mechanisms. Their operations reflect a balance between practical energy access and strategic growth in underdeveloped, often overlooked, solar markets.

## Business Model, Value Proposition & Pain Points

ASG's evolution reflects a key market insight: poor and rural areas present a huge social opportunity but not a viable business case without subsidy or financing. After setbacks with minigrids and household systems, ASG moved to C&I projects where motivations range from cost savings and energy security to sustainability branding.

They aim to offer full-package solutions, but face several operational and strategic hurdles:

- Financing remains difficult — local banks offer loans at 15–20% interest.
- In Cameroon, import logistics and taxation (licenses, duties) are major cost drivers.
- A lack of skilled labor and weak infrastructure limits the introduction of newer tech.
- Their positioning is not focused on sustainability as differentiation, but sustainability is embedded in their offering by default.

## Market View – African & Swiss Energy Landscapes

Cameroon is seen as an immature and difficult market, chosen more by personal connection than strategic analysis. ASG warns of low institutional support, limited competition, and no real incentives to scale renewables. While countries like Ghana or Kenya push solar through industrialisation strategies and financing access, Cameroon lags behind.

In contrast, Switzerland represents a context of trust, order, and structured incentives — traits ASG suggests are rare in West African markets. The founder openly advises that due diligence, cultural understanding, and financial realism are essential before market entry. The lack of Swiss players in Africa is attributed not to opportunity, but to a lack of contextual understanding and local partnerships.

## Perceived Potential for Collaboration

ASG believes Swiss and European firms have much to gain from African solar markets — but only with realistic expectations and local knowledge. Potential collaboration areas include:

- Co-developing financing mechanisms for C&I solar in underfunded markets.
- Joint ventures with local installers and importers to reduce costs and expand reach.
- Knowledge-sharing platforms on how to adapt business models for culturally and financially diverse markets.
- ASG explicitly highlights the value of this exchange project — affirming that understanding Africa's market mechanics and social context is the missing piece for many Western firms looking to expand sustainably.

# Gorgeous Solar Solutions

## Company Profile

Gorgeous Solar Solutions is an Ethiopian solar energy company founded in 2019 by Gezachew Fekadu, who brings extensive experience from roles at Total Energies and Solar Kiosk. The company focuses on the design, import, customization, and commissioning of solar systems for commercial, industrial, and institutional clients, as well as select last-mile distribution of solar home systems. Unlike mass-market providers, Gorgeous emphasizes tailored system design, drawing from quality components sourced from Asia and Europe. The company has grown into a trusted player in the C&I solar segment despite Ethiopia's challenging business environment.

## Market View – African & Swiss Energy Landscapes

In Ethiopia, the solar market is expanding rapidly due to government programs (e.g., "Light for All," mini-grids, solar for schools), but access to capital and market entry barriers remain high. The C&I segment is underserved, offering room for locally driven innovation.

Gezachew notes that while Swiss companies are absent from the Ethiopian solar sector, European firms also struggle due to Ethiopia's complex regulations and closed-market legacy. He stresses that Ethiopia is different from other African markets, requiring patience, cultural understanding, and service-first strategies.

## Business Model, Value Proposition & Pain Points

Gorgeous Solar Solutions positions itself between high-end European products and low-cost imports, offering mid-range, reliable systems tailored to client needs. Their value lies in customized designs, careful load isolation to prevent misuse, and fast, dependable maintenance — all contributing to long-term service relationships built on trust.

However, the company faces key challenges: scaling is limited by a lack of working capital and end-user financing, while internationally tendered projects (e.g., through the World Bank) often sideline local firms in favor of larger Chinese and European competitors.

## Perceived Potential for Collaboration

Gorgeous Solar sees high potential in Swiss-African collaboration, particularly in areas such as:

- Joint ventures for mini-grid development
- R&D and product testing, including assembly partnerships
- Blended finance mechanisms to overcome local capital constraints
- Gezachew advises Swiss firms to enter with a learning mindset, build long-term trust, and be resilient and impact-driven. He emphasizes the value of structured knowledge exchanges and welcomes opportunities to engage in community energy projects and innovation-focused initiatives.

# Eware Group

## Company Profile

EWARE Group, founded in 2022 and based in Togo, is an early-stage energy startup led by engineer Louis Kodjovi Anono. With a background in solar energy systems and e-mobility, the company focuses on the design, import, and installation of solar kits and clean energy solutions tailored to West African needs. EWARE's ambition is to deliver both energy access and innovation, starting with reliable system delivery and moving toward local adaptation and circular energy models like biogas. The team currently works on building brand trust and operational foundations in Togo while laying the groundwork for regional expansion.

## Market View – African & Swiss Energy Landscapes

In Togo, EWARE operates in a supportive policy environment that nonetheless imposes high taxes and complex regulations on local startups. The customer base remains highly cost-sensitive, and access to consumer financing is limited — making wide-scale solar adoption slow.

Switzerland is seen as a technically advanced, mature market but also less adaptable, with slower market movement and more rigid structures. EWARE views Swiss firms as rich in engineering knowledge and system optimization, but believes that African startups excel in agility, contextual adaptation, and affordability, particularly in dynamic or informal settings.

## Business Model, Value Proposition & Pain Points

EWARE adopts a research-driven, iterative business model, grounded in product-market fit testing, data analysis, and strategic delivery. The company distinguishes itself by resisting fast-profit routes and instead focusing on quality, long-term viability, and local system integration. All growth to date has been self-financed, which limits scaling speed but preserves independence and focus.

A key insight: while base-of-the-pyramid consumers offer vast need, they often lack access to financing, making commercial viability extremely difficult. EWARE therefore concentrates on segments with better repayment capacity while continuing to explore sustainable delivery models for underserved communities.

## Perceived Potential for Collaboration

EWARE sees clear collaborative potential in areas such as technology transfer, co-creation of localized solutions, and blended finance models that could unlock growth for both sides. The company is particularly open to partnerships that support:

- Knowledge-sharing
- Mentorship from experienced Swiss firms
- Financing vehicles or co-investment structures Future expansion is already being considered in Mali, Benin, and Burkina Faso, where regional similarities offer scaling potential. EWARE believes that Swiss precision and African pragmatism can be complementary — creating robust, field-ready solutions that serve both social and commercial objectives.

# Findings & Insights

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## Market Trends – Diverging Realities, Shared Momentum

While Switzerland and Sub-Saharan Africa operate in vastly different energy contexts, both markets are undergoing rapid change. Switzerland's solar sector is driven by policy-led decarbonization, high public trust, and quality-focused innovation. Meanwhile, African markets such as Kenya, Togo, and Cameroon are fueled by necessity, affordability, and digital innovation — particularly in off-grid and PAYG models.

- Swiss companies operate in a saturated and regulated landscape, seeking efficiency and grid integration (e.g. peak shaving, storage systems).
- African companies are navigating fragmented but fast-growing markets where energy access is a core driver, and financial innovation (e.g. PAYG, microfinance) unlocks adoption.

Emerging trends across both regions include:

- Decentralization of energy systems (e.g. mini-grids, hybrid systems).
- Tech-enabled services, such as remote monitoring and smart payments.
- A shift toward more service-oriented solar models, prioritizing maintenance, after-sales, and community integration.

## Business Strategies – Resilience Over Hype

Across the board, companies that succeeded in scaling or surviving shared one trait: adaptability to context over adherence to trends. Strategies differed, but strong performers:

- Prioritized quality over rapid growth, especially in markets with reputation-sensitive customer bases.
- Built trust through after-sales support, local hiring, and tailored system design.
- Developed creative acquisition models, from social media storytelling (e.g. Afenergy) to NGO distribution channels (e.g. Ennos) and B2B referrals.

Case studies further highlighted:

- Arclight's community-based segmentation and additional service layers (e.g. water systems).
- Gorgeous Solar's customized design and mid-tier value positioning.
- EWARE's research-before-scaling philosophy.

The shift away from "solar for everyone" toward focused niches (e.g. C&I clients, institutional buyers, farming cooperatives) emerged as a pragmatic response to financing and risk challenges.

## Technology and Innovation – Carefully Applied Progress

While Switzerland leads in component innovation and grid-integration technologies, African companies excel in frugal innovation and local adaptation.
Swiss firms develop high-efficiency modules, smart optimization tools, and scalable integration solutions. In contrast, African companies prioritize robust, repairable, and context-friendly systems — often repurposing batteries or simplifying maintenance.
A shared caution exists around:

- Premature tech adoption without support infrastructure.
- High reliance on imports and fragile supply chains (notably in Cameroon and Ethiopia).

The potential lies in hybrid innovation models, where Swiss precision engineering meets African field innovation through joint testing, regional pilots, and co-designed systems.

# Findings & Insights

## Sustainability and Community Engagement – A Built-In Advantage

For many African solar companies, sustainability is not a branding choice — it is the business model. From EWARE's circular ambition with biogas to Innoneat's reuse of lithium batteries, environmental and social impact are deeply embedded.
Swiss companies show a more structured approach to sustainability (e.g. recyclability, grid feedback optimization), but are generally more policy-driven.
Community engagement is strongest when companies:

- Integrate local groups in distribution (e.g. women's cooperatives, youth training).
- Provide education alongside products, improving long-term usage and trust.
- Combine social impact with business viability, not in opposition but as a multiplier.

## Technology and Innovation – Carefully Applied Progress

Several shared and region-specific challenges emerged:

- Capital access is a universal concern. African firms often rely on self-financing or high-interest local loans (15–20%), while Swiss companies face shrinking subsidies and regulatory bottlenecks.
- Cultural mismatches pose underestimated barriers to expansion — from payment behavior to work ethics.
- Regulatory environments in Africa can be opaque or unstable, while in Switzerland, the complexity lies in overregulation and canton-level inconsistencies.

Mitigation strategies that surfaced:

- Use of blended finance and donor-backed funds.
- Prioritizing countries with proven ease-of-business and active solar incentives.
- Creating binational structures or joint ventures to align technical excellence with market penetration.

## Deepening the Exchange: From Insight to Infrastructure

One of the clearest outcomes of this project has been the identification of shared strategic blind spots: areas where both African and Swiss solar companies face friction in executing cross-border growth, despite mutual interest.
Among these, four critical domains emerged consistently in interviews and case reviews:

- Policy Navigation: Companies struggle to track and interpret regulation across fragmented jurisdictions. Whether it's import licenses in Cameroon or cantonal permitting in Switzerland, policy friction slows growth.
- Market Entry Models: Many firms express interest in expansion but lack structured GTM approaches. The choice between joint ventures, agent networks, or direct installations remains largely ad hoc.
- Access to Finance: Despite abundant global capital for climate tech, most companies interviewed — especially African SMEs — remain capital-constrained. There is a consistent disconnect between funder expectations and grassroots financial realities.
- Cross-Regional Visibility: Swiss firms rarely appear in African solar ecosystems. African companies lack entry points into European procurement and funding networks. Mutual awareness is low, and cultural misalignment compounds the issue.

These gaps suggest that reports alone are insufficient. What's needed is a business intelligence layer: structured resources that help founders and executives actively solve these problems through shared tools, standard operating procedures (SOPs), market scores, and financial directories. The next phase of this project is already addressing that need.

# Recommendations

## Strategic Recommendations for African Solar Companies

- Focus on Niche Markets with Proven Payment Capacity
- While energy access remains a moral imperative, successful companies (e.g. ASG, Afenergy) have pivoted toward C&I clients and institutional buyers who can reliably pay and offer long-term relationships.
- Invest in After-Sales and Trust-Building Systems
- In informal or price-sensitive markets, service quality and maintenance assurance are key differentiators. Build local technician networks and keep system design simple and repairable.
- Strengthen Internal Systems for Partnerships and Scale
- Swiss and international actors seek clarity and structure. Document internal processes, demonstrate market traction, and define your unique value proposition clearly for foreign partners or investors.
- Map and Prioritize Expansion Based on Financing Ecosystems
- As noted by multiple founders, markets like Kenya, Ghana, and Rwanda offer better financing frameworks and support for renewables than others. Use this to guide geographic growth.

## Strategic Recommendations for Swiss Solar Companies

- Engage Beyond Technology — Be Present and Curious
- African partners repeatedly emphasized the absence of Swiss firms in their ecosystems. Showing up — through learning visits, joint pilots, or panels — builds credibility and unlocks insight.
- Co-Invest in Pilot Projects That Reflect Local Realities
- Use local partners to identify scalable, impact-oriented pilots in areas like solar irrigation, C&I systems, or last-mile delivery. Consider blending technical R&D with real-world deployment.
- Adapt Swiss Standards to Local Constraints
- Bring your technical excellence — but make it modular, affordable, and robust. Understand that system failure often stems from misalignment, not incompetence.
- Support Flexible Financing Models
- Collaborate on blended finance tools, leasing structures, or pay-per-use systems tailored to local cash flow dynamics. Many African firms are blocked not by demand, but by payment structures.

## Shared Recommendations for Collaboration

- Establish a Matchmaking Platform or Dealbook
- Facilitate direct contact between like-minded companies on both sides. A curated network or annual exchange event could lower the barrier to collaboration.
- Create a Joint Capacity-Building Program
- Launch an initiative that combines Swiss mentorship (e.g. compliance, tech integration) with African field knowledge (e.g. user behavior, market adaptation).
- Embed Cultural Learning into Every Partnership
- Co-Develop Affordable Innovation
- Explore collaborative R&D for mid-tier products that strike a balance between Swiss quality and African affordability — especially in components like inverters, batteries, and monitoring tools.
- Beyond business plans, every collaboration needs intercultural understanding. Shared training, immersion, and joint problem-solving will build resilient cross-border teams.

# Conclusion

The Solar Knowledge Exchange Project was conceived as a platform for learning, dialogue, and the co-creation of opportunities between African and Swiss solar companies. Through market analysis, structured interviews, and direct engagement, this initiative has revealed both the diversity of solar business models and the shared challenges that unite practitioners across continents.

At the heart of this project lies a simple insight: while Africa and Switzerland represent vastly different energy realities, the solar sector in both regions is being shaped by the same underlying questions. How can we balance quality with affordability? How do we finance sustainable energy systems in environments with different levels of infrastructure and trust? And how do we design solutions that reflect the social, cultural, and economic contexts they serve?

From Swiss firms operating in a high-compliance, subsidy-sensitive ecosystem to African startups navigating volatility and limited financing, every company involved in this project showed resilience, creativity, and a deep commitment to impact. These shared values — service quality, community trust, innovation, and long-term thinking — provide a powerful foundation for collaboration.

This report has sought to present not only the macroeconomic trends and regulatory frameworks that define these markets, but also the lived experience of solar entrepreneurs on the ground. It has identified areas where collaboration is not just possible, but necessary — from technical co-development and localized financing models to knowledge-sharing, mentorship, and joint market exploration.

Looking ahead, the success of this project should not be measured only by insights gathered, but by the relationships it seeds. The real value lies in what happens next: follow-up conversations, experimental pilots, and long-term partnerships that blend Swiss precision with African adaptability.

We close this report with a call to action. To the participating companies: pursue the connections that were started here. To the organizers and supporters: invest in platforms that make continued exchange possible. And to the wider community: recognize that the future of solar energy depends not only on technology, but on collaboration — across borders, across contexts, and across cultures.

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# THANK YOU


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