

From Access to Utilization

Rethinking Renewable Energy Financing in Rural Ghana

An Insight Brief by
Alliance for Empowering Rural Communities (AERC)

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Foreword



“The true value of energy lies not in access, but in how it transforms lives.”

Ghana’s progress in expanding electricity access is a significant achievement and a testament to sustained national effort over the years.

As we build on this progress, it is important to ensure that our efforts continue to deliver meaningful value to the communities we serve. This requires a renewed focus on practical solutions, stronger collaboration, and a clear commitment to long term impact.

At the Alliance for Empowering Rural Communities, we remain dedicated to supporting initiatives that strengthen livelihoods, promote sustainability, and advance an inclusive energy future for all.

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Introduction



Over the past decade, Ghana has made remarkable progress in expanding electricity access, with national access rates now exceeding 90 percent. This achievement is often celebrated as a major milestone in the country's development journey. However, beneath this progress lies a more complex reality. Access alone has not translated into meaningful and sustained energy use in many rural communities.

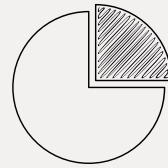
In practice, many households and small businesses continue to struggle with affordability, reliability, and the practical value of the energy available to them. This raises an important question. If energy infrastructure is expanding, why is impact still limited?

This brief draws on insights from the National Renewable Energy Finance Dialogue to explore a critical shift in thinking. Ghana's energy challenge is no longer just about access. It is increasingly about utilization, financing, and long-term sustainability.

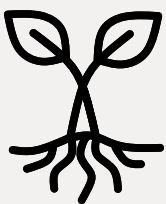
From Access to Utilization



One of the most important insights from the dialogue was the growing disconnect between energy access and energy use. While infrastructure such as mini grids and solar systems is being deployed, actual usage often remains low.



A clear example is a mini grid installation in Ada where only about one third of the community was actively using the system one year after commissioning. This is not an isolated case. It reflects a broader issue where energy systems are introduced without fully aligning with the economic realities and needs of the communities they are meant to serve.



Access, in this sense, becomes a starting point rather than an outcome. Without consistent and meaningful use, energy systems cannot deliver the economic and social benefits they are designed for.

“Access is a starting point, not the outcome.”

The Real Constraint: Financing, Not Technology

Ghana is not short of renewable energy solutions. Technologies such as solar home systems, mini grids, and clean cooking solutions are already available and increasingly accessible. The real constraint lies in how these solutions are financed and sustained.

Current financing approaches include pay as you go systems, mini grid investments, and blended finance models that combine grants, concessional loans, and private capital. While these models have enabled progress, they have not been sufficient to scale solutions across rural communities.

Several challenges continue to limit investment. Financial institutions often perceive renewable energy projects as high risk, particularly due to currency volatility between the Ghana cedi and major foreign currencies. In addition, many projects struggle to demonstrate bankability because of limited data on demand, usage patterns, and creditworthiness.

As a result, a significant financing gap remains, preventing many promising projects from moving beyond pilot stages.

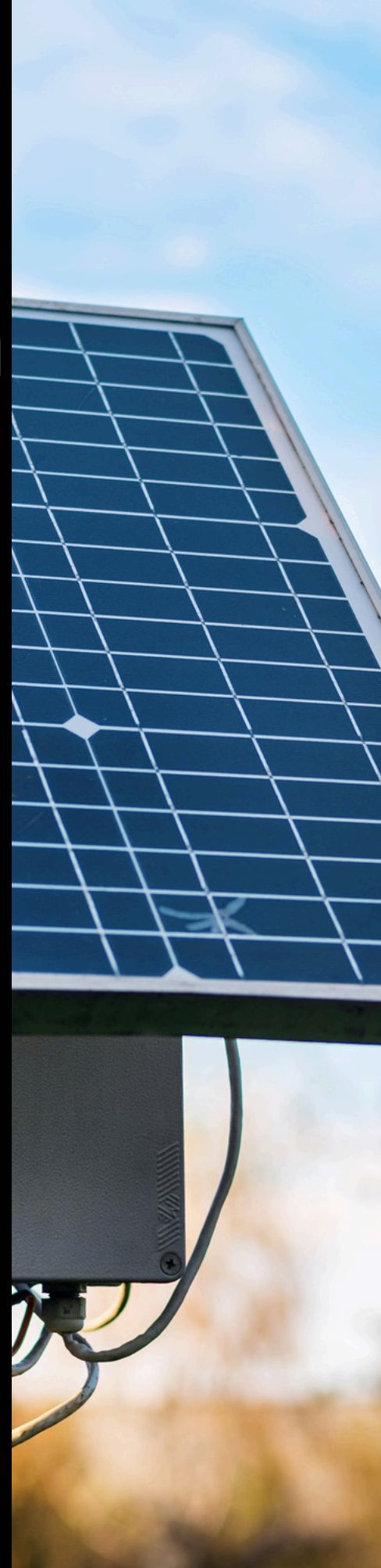


The Hidden Cost of Underutilization

An often overlooked consequence of underutilized energy systems is its broader economic and environmental impact. When renewable energy systems are not fully used, their potential benefits are not realized. At the same time, households continue to rely on traditional energy sources such as charcoal, firewood, and diesel generators.

This creates a situation where clean energy exists alongside continued use of high emission fuels. In effect, the presence of renewable energy infrastructure does not automatically lead to a reduction in emissions.

A system that is not actively used does not displace existing energy practices. Instead, it delays the transition to cleaner energy. This highlights an important point. The effectiveness of renewable energy investments should not be measured only by installation, but by actual and sustained use.





De Risking as the Missing Link

A key takeaway from the dialogue was the importance of reducing risk in order to unlock financing. While various financing tools exist, their effectiveness depends on how well risks are managed and shared.

Blended finance plays an important role by combining public and private resources. Grants and concessional loans can help lower the financial burden on projects and make them more attractive to investors. Carbon finance also offers an additional revenue stream by allowing projects to generate and sell carbon credits.

Another promising approach is results based financing, where payments are tied to verified outcomes such as the number of operational systems or active users. This creates incentives for quality and long term performance rather than short term installation targets.

However, for these mechanisms to work at scale, there is a need for stronger coordination and implementation. In particular, the Renewable Energy Fund must move beyond policy and become a fully operational and well capitalized facility that can effectively support projects and share risks with investors.



Linking Energy to Livelihoods

One of the most practical insights from the discussion was the need to connect energy access with productive use. Energy systems are more likely to be adopted and sustained when they directly support income generating activities.

For example, solar powered equipment for agriculture, small scale processing, or local businesses can increase productivity and create new economic opportunities. When communities see clear financial benefits, their willingness to adopt and consistently use energy solutions increases significantly.

This approach shifts energy from being a basic service to being an enabler of economic growth. It also improves the financial viability of projects by creating more predictable demand and revenue streams.



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Conclusion

Ghana has made important progress in expanding access to electricity, but the next phase of the energy transition requires a shift in focus. The challenge is no longer only about connecting communities to energy systems. It is about ensuring that these systems are used, valued, and sustained over time.

Addressing this challenge requires rethinking how renewable energy is financed and implemented. Greater attention must be given to de-risking investments, linking energy to livelihoods, and ensuring that systems are designed with the realities of users in mind.

Ultimately, success will depend on moving beyond access and towards utilization. When energy systems are fully integrated into the daily lives and economic activities of communities, they can deliver the transformative impact that Ghana's energy transition aims to achieve.

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