



# CRACKING THE CODE

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Lessons learned from 12 years of mini-grid  
results-based financing in Africa



## Mini-Grids

Mini-grids are seen as one of the most cost-effective and scalable energy solutions to provide electricity for some 380 million people in Sub-Saharan Africa by 2030. Yet, as of early 2025, only 14% of the \$9.1 billion in financing committed to mini-grid electrification across Africa had been disbursed.

To help attract the necessary investment, results-based financing (RBF) programmes offer subsidies tied to specific project milestones and, when properly developed and strategically deployed, can play a crucial role in this urgent mission.

Since 2013, at least 13 RBF programmes supporting the acceleration of mini-grid instalments have launched across Africa, including the Beyond the Grid Fund for Africa programme (BGFA), and the effectiveness of these programmes have been examined as part of this study.

These RBF programmes have played a catalytic role in developing the mini-grid sector. With appropriate refinements and the integration of complementary support mechanisms, they can become effective tools for increasing momentum towards the \$91- \$127 billion needed to provide electricity to 380 million people by 2030.



## Key findings

The study identifies several key factors for the successful implementation of mini-grid projects through results-based financing (RBF) mechanisms:

- **Market selection is critical:** RBF deployment is often delayed by underdeveloped regulatory frameworks, unclear electrification strategies, inconsistent application of policies, and political uncertainty.
- **Local presence matters:** Programmes with dedicated in-country teams are more effective at navigating regulatory and operational challenges than remote-led initiatives.
- **Connection-based metrics do not always incentivise sustainable service delivery:** Rewarding connection numbers alone can undermine long-term viability. Incentives should focus on energy use and financial sustainability.
- **Scale matters:** Larger developers benefit from economies of scale and are better equipped to manage financial risks and drive industry consolidation.
- **Early funding supports smaller players:** Early-stage disbursements help local developers but require robust safeguards to manage programme risk.
- **RBF programmes work best as part of an integrated support ecosystem:** Guarantees and credit enhancements, risk insurance, technical assistance, public sector capacity building, and additional revenue streams.
- **Streamlined verification processes enhance efficiency:** For example, using smart meters and digital tools reduces costly delays in fund disbursement while maintaining accountability.
- **Ringfenced models reserve funding for a specific developer:** This approach increases investor certainty but can necessitate contract extensions when inevitable delays occur.
- **Productive use is key:** Incentivising commercial energy use improves mini-grid profitability and sustainability. Over-reliance on low-consumption residential users threatens viability.



Photo: Enercity's commissioned mini-grid site in Farwhenta, Liberia - Nefco



## Future recommendations

The study underscores that results-based financing programmes (RBFs) remain a suitable support instrument for the mini-grid sector, but they must be designed with greater pragmatism, streamlined through digital tools, and tailored to different developer types.

With just under five years remaining to achieve SDG7, urgency is paramount. RBFs must evolve from slow, bureaucratic grant channels into agile, strategic accelerators—or risk becoming yet another bottleneck in the race toward universal electrification.

The study highlights the following key aspects for designing and implementing RBF programmes to support the rapid scale-up of energy access in Africa:

- Clarify programme objectives and design accordingly
- Re-design incentive structures to focus on energy consumption rather than just connections
- Address pre-financing challenges through early milestone payments and integrated pre-financing offerings
- Streamline verification processes using digital technologies
- Enhance coordination and alignment with in-country actors, especially national governments, programme donors and other results-based financing programmes

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RBF PROGRAMMES HAVE LAUNCHED ACROSS AFRICA SINCE 2013

~ €142m

OF TOTAL €250M IN RBF COMMITMENTS RAISED EARMARKED FOR MINI-GRID PROJECTS

66%

OF TOTAL FUNDS DISBURSED OR CONTRACTED TO MINI-GRID COMPANIES

80%

OF MINI-GRID REVENUES ARE ACCRUED BY PRODUCTIVE ENERGY USERS

## Background

The study, written by The Future of Energy, is intended for policymakers, donors and actors in the private sector working to scale up energy access through mini-grid solutions in Africa. The aim of the study, which was commissioned by Nefco in early 2025, was to assess the effectiveness of Results-Based Financing mechanisms in supporting mini-grid development across Africa, including the BGFA programme.

Photo: Enercity's mini-grid customer in Farwhenta, Liberia - Nefco



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