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# HOW TO UNLOCK FINANCING FOR MINI-GRIDS IN AFRICA AT SCALE THROUGH MULTI-STAKEHOLDER COLLABORATION

Cover: Moyamba project in Sierra Leone, developed by Energicity. Image source: Camco

The Renewable Energy Performance Platform (REPP) is funded by the UK government through the Foreign, Commonwealth and Development Office (FCDO) and managed by Camco.

The Africa Minigrid Developers Association (AMDA) is supported by GET.invest.

This publication is based on discussions during the Mini-grid CEO Roundtable, which was co-hosted by REPP and AMDA in partnership with ESMAP and The World Bank. The event took place on the sidelines of the ESMAP Action Learning Event in Nairobi, March 2023.

**Citation**: REPP and AMDA, 2023. How to unlock financing for mini-grids in Africa at scale through multi-stakeholder collaboration. Nairobi.

# OVERVIEW

In March 2023, the UK-financed Renewable Energy Performance Platform (REPP) and the Africa Minigrid Developers Association (AMDA) convened thought leaders from the African mini-grid sector for a day of roundtable discussions in Nairobi. The aim was to bring together developers and financiers for frank talks on the current financing landscape and how to scale up investments to accelerate mini-grid deployment by a magnitude of 10 and achieve SDG7 by 2030.

The delegates discussed some of the fundamental challenges that are inhibiting sector growth, shared their diverse knowledge and experiences, and started on the co-creation of actionable solutions. This paper presents some of the key insights from the discussions and makes recommendations to spark further action.



*Source: Standard Microgrid*

## CORE MESSAGES

- Agreeing on a common goal and definitions of scale and impact is critical for accelerating mini-grid deployment in line with SDG7 targets.
- The key to unlocking investment flow lies in improving the transparency, collaboration and trust between developers and funders, as well as within these stakeholder groups themselves, with each of them playing their part towards the achievement of SDG7.
- Greater emphasis must be placed on streamlining processes (investment, impact monitoring, regulatory) to improve the efficiency of deal flow.

# ACHIEVING SCALE

Mini-grids are essential infrastructure projects, which require long-term patient capital with low return expectations. However, the perceived risk level of the sector is quite high compared to traditional utilities. This creates a mismatch which makes it challenging for mini-grid companies to attract capital, particularly in growth stages. In this situation, it is critical that impact-driven funders offer the concessional financing required to de-risk the sector and support the mobilisation of further private capital.

In line with the long-term vision, developers should demonstrate and prove their strong local footprint and an ability and willingness to operate in the long term locally.

Achieving scale requires efficient capital deployment. The World Bank estimates that the 29,400 currently planned mini-grid projects, 95% of which are in Africa and Southeast Asia, will require USD 9 billion alone.[1] Even with larger tickets sizes, thousands of financing deals will be needed to achieve SDG7 by 2030. Lengthy investment processes present a major risk to developers who stand to lose access to time-bound results-based financing (RBF) facilities and/or who run out of funding and are then forced to turn to expensive bridge financing as a result. Investors should consider how they can improve the speed and efficiency of their investment processes and ensure the timing of RBF and financing flows is aligned.

To date, the sector has focused on two ends of the financing spectrum: (1) larger deals with complex financing structures that take a long time to close and (2) smaller deals that are marked by high transaction costs.

More funders with the ability to deploy medium-size tickets are needed in the mini-grid sector to ensure developers can secure financing for growth. Donors should focus more on providing the necessary concessional capital to de-risk financing facilities to the level required to attract commercial investors.

There is a role for all types of financing throughout the trajectory of company growth. However, in the current market there is a shortage of long-term patient growth capital, particularly in the form of equity and equity-like instruments. This type of patient and flexible capital is required to grow companies by enabling them to establish strong corporate teams, which are critical for improving and expanding operations in line with the highest environmental and social standards. Lack of this type of financing therefore inhibits developers from reaching scale. If this gap is not addressed, it could create a “valley of death”, which would prohibit the sector from scaling (see Figure 1). The mini-grid sector needs to identify and attract more financiers capable of providing equity and hybrid types of financing.

While project finance for mini-grids is an important financing approach for sector scale up, it should be used with care and should not detract attention from focusing on finance for company growth.

1. ESMAP data. World Bank/ESMAP, 2022. Mini-grids for half a billion people

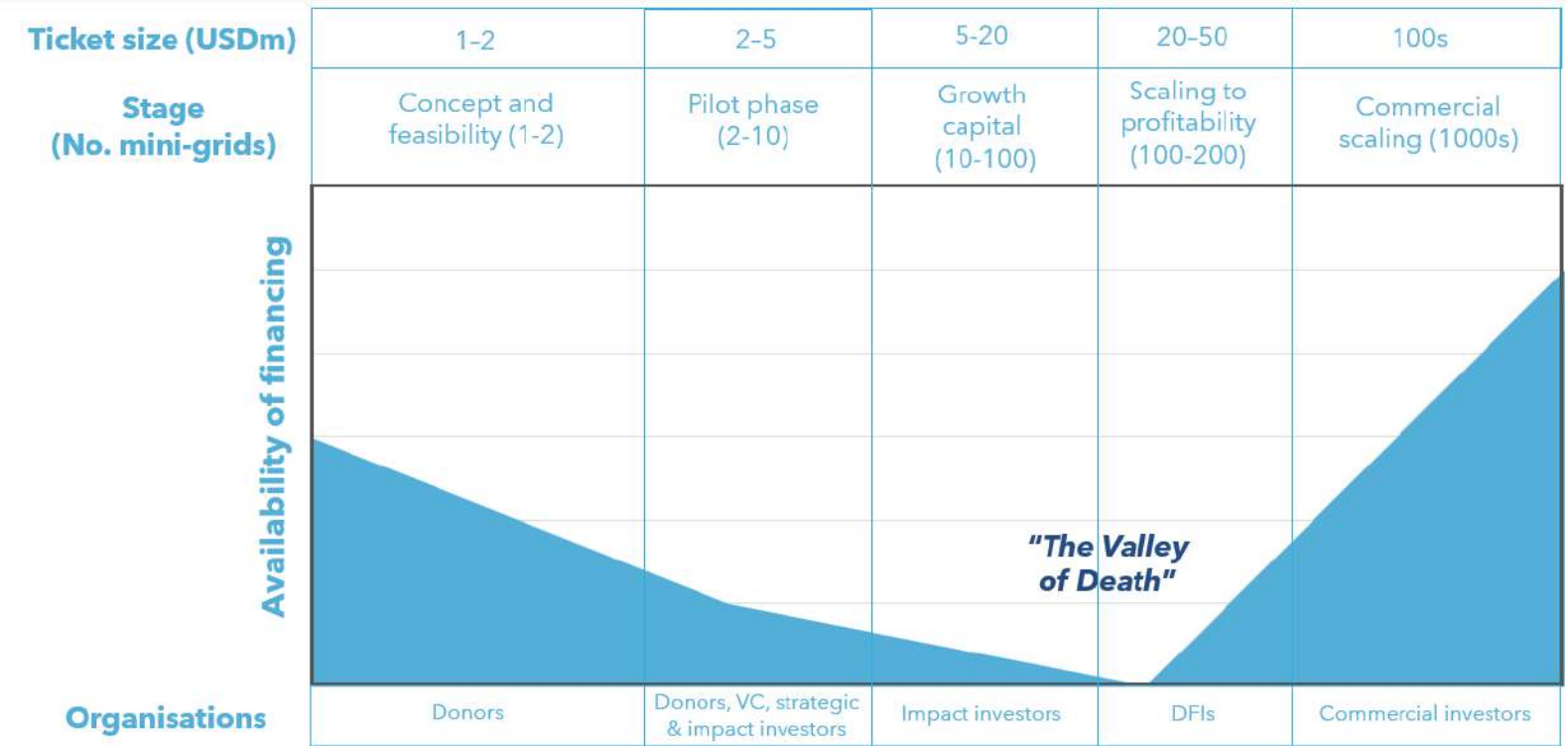



**FIGURE 1: THE CURRENT FINANCING LANDSCAPE AND THE 'VALLEY OF DEATH'**



*Source: Ensol*

# UNLOCKING DEAL FLOW

The key to unlocking deal flow lies in improving the transparency, collaboration and trust between developers and funders, as well as within these stakeholder groups themselves. Each of them must play their part with a clear focus towards the achievement of SDG7.

Investors should streamline their due diligence requirements to ensure they are commensurate with the scale and nature of the sector and of specific financing instruments, as well as being aligned with the financier's mandate (e.g., impact investors should not have the same requirements as infrastructure funders). Currently, decision makers at financing institutions are not seeing mini-grids as a different asset class, meaning they are too often applying the same standards as they would to large infrastructure projects.

Efficiency of investment processes can be further improved through increased transparency, standardisation and collaboration between financiers (e.g., sharing of due diligence studies, standard deal structures, and discussing lessons learned). Meanwhile, donors should aim to standardise grant application processes, which would improve efficiency and reduce the costs of financing.

Mini-grid developers need to build trust in their practices and willingness to achieve SDG7 by providing investors with information on key business model assumptions and strategies (such as ARPU/connection maximisation, profitability expectations, productive use of energy (PUE) strategies), as well as key impact metrics. Where required, this information should be independently verified.

Equity deals are often being slowed down by conflicting views over a company's valuation. More peer-to-peer financier exchanges and knowledge development on valuation methodologies would be helpful to inform decision-making. Utility valuation could be used as a benchmark.



*Source: Renewable Energy Innovators Cameroon*

Debt financiers are still struggling to appropriately assess and mitigate key risks, including revenue, currency and regulatory. While some risks can be mitigated at the deal level (for example, through concession contracts), others could be better addressed at the portfolio level through blended finance that includes a concessional tranche and diversification (i.e., different types of financial instruments, business models, and/or geographies).

Donors need to provide longer-term predictability of RBF programmes, better aligning their timelines with those of commercial financing deals to ensure the RBF serves its purpose of risk mitigation.

With the current increase in inflation and currency devaluation in several key mini-grid markets, currency risk remains high on the list of concerns for most investors and developers. Innovative mechanisms for addressing this risk are required to unlock deal flow.

- As a baseline, regulatory frameworks should include clear and easily actionable tariff indexation mechanisms while also ensuring that mini-grid customers, often the poorest in society, do not bear the brunt of external economic forces. More capacity building of local financiers is also required to support them in entering this sector.
- Alternative, donor-backed innovative mechanisms could include a local currency guarantee mechanism, which is a pool of subsidy funding that would become available to cover the inflation change when the currency moves more than the price elasticity allows to increase the tariff.
- Donors should also consider providing RBF in hard currency and using their bargaining power to address any issues related to expatriation of hard currency capital.

Local developers in particular are struggling to attract capital. Funders should consider applying a more targeted approach to expand the number of investments in local companies in their portfolios and should assess any potential inherent biases in their decision-making processes.

**While more technical assistance (TA) is required in general, the focus and delivery mechanisms of this assistance could be improved based on these lessons learned to date:**



**More support is required for early-stage companies** – particularly local developers – to advise them and build their internal capacities in grant- and capital-raising activities.



**Further support is required for building corporate capabilities.** More embedded TA for investees is required - along with working capital - to support the growth of internal staffing capacities, particularly sound financial and impact management. TA can also be used to cover the additional costs related to transparency and independent audits on mini-grid companies' key metrics.



**Joint learning can be facilitated through peer-to-peer knowledge exchange between developers.** Efforts are already under way to create a permanent peer-to-peer knowledge roundtable between CEOs following the REPP/AMDA co-hosted event in Nairobi.

# STRENGTHENING ESG AND IMPACT

ESG risk identification and impact measuring are time consuming and costly to developers, but they are important. While most funders apply similar ESG and impact measurement frameworks,[2] **more consolidation is required on core metrics and reporting templates to reduce the associated costs for developers and improve efficiency.**

**Impact measurement strategies and key performance indicators (KPIs) need to be centred around the communities where projects are being developed and consider realities on the ground**. For example, by applying KPIs that lend themselves to being measured and which consider cultural aspects, particularly with regards to gender. Unrealistic or inappropriate requirements can drive developer behaviour that is geared towards the fulfilment of KPIs and which could come at the expense of a project's long-term impact and economic sustainability.

**International consultancy firms carrying out ESG due diligence on behalf of funders should ensure the integration of local communities in the design of the project.** Stakeholder engagement and grievance mechanisms should be planned together with local experts, which would improve the assessment of the project's nuanced cultural and ethnic aspects.

**It is important to ensure – whether during due diligence or everyday operations – that ESG aspects are not siloed within the dedicated teams.** Staff from across mini-grid companies need to be aware of ESG risks, and senior management must be committed to implementing the business's established Environmental and Social Management System (ESMS).

**Impact ratchet mechanisms could be put in place in order to incentivise the developers to reach the impact communicated at the DD stage.**

**More transparency and strengthened supply chain due diligence are urgently required to address human rights issues in supply chains.** Forced and child labour issues are prevalent in mining and by extension in solar PV and lithium-ion battery supply chains. Developers and investors have a responsibility to protect human rights, and this practice should be reflected in their labour and procurement policies covering the entire supply chain.

Currently, traceability of supply chains is challenging and costly. When developers are required to trace their supply chains, this cost is being passed on to the consumer. **Financiers should provide more guidance, support and incentivisation to developers to map and address supply chain risks.**

**Joint action is critical for getting to the root of human rights issues in supply chains and addressing the causes.** Currently, different stakeholder groups are passing on legal responsibility from one to the other due in part to the complexity of the matter. By working together, the sector would have more bargaining power to demand manufacturers address the issues and provide details about their supply chains and the processes they have put in place to ensure they are aligned with labour rights.

2. ESG risk identification and mitigation is conducted according to the eight IFC Performance Standards. Which impact guidelines are used will vary from one organisation to another, but some examples are the UN Sustainable Development Goals, UNFCCC/Paris Agreement, and 2X Challenge's gender lens investing criteria.

# MITIGATING REGULATORY RISK



*Source: ENGIE*

Lack of bankable and enforceable regulations, contracts and strong governance processes are considered the highest risk by investors and slow down the deployment of capital. **Regulatory frameworks and concession contracts should include clear and easily actionable provisions for the eventual arrival of the grid, termination payments, breach of contract and tariff indexation.** The more detailed the regulations are, the more confidence funders will have, which will in turn reduce their perception of risk and lower the cost of their capital. Reducing capital costs directly results in lower tariffs for mini-grid customers.

**Project contracts can mitigate risks well, but a strong regulatory framework is also required.** While a good short-term solution, regulating by contract can create misalignment in the long run (if different contracts are signed) and is not the most efficient way to regulate in the absence of a strong mini-grid regulatory framework.

**Investors should be consulted early in the process of regulatory / concession contract development to share their perspectives on what they would consider as a bankable framework.**

**To be successful, robust regulation requires robust governance.** Governance effectiveness is very difficult to assess, but AMDA data shows that for a single mini-grid, the average total time to attain all licences and approvals is 58 weeks.[3] Even if regulators were able to process 1,000 licenses per year, it would take 160 years to process all the required licences for the 160,000 mini-grids that the World Bank estimates are needed to power 380 million people in Africa by 2030.[4] The mini-grid sector needs solutions that support rapid scale, e.g., portfolio applications and fit-for-purpose technical standards adapted to the scale of the project.

**More targeted TA is required for governments, and particularly assistance focused on transaction advisory support.** Any TA focused on the development of mini-grid regulatory frameworks should also include a strong capacity building element. However, capacity building will only be effective to a certain degree if regulators and other government agencies remain understaffed and under-resourced.

3. Africa Minigrid Developers Association, Benchmarking Africa's Minigrids Report, 2022.
4. The World Bank indicates that Africa needs 160,000 mini-grids by 2030, meaning 17,000 mini-grids must be built every year. However, only Sierra Leone to date has been able to license more than 50 mini-grids in one year.

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