

An introduction to the

African Minigrid Developers Association



Overview



1. What and who is AMDA and its members?
2. Overview of the minigrids context in 2018 – *cost, benefit, regulation*
3. AMDA's role 1 – Creating a sectoral *data benchmark*
4. AMDA's role 2 – Using data & *evidence to attract finance*
5. AMDA's role 3 – Using data & *experience to build enabling environments*

About AMDA



Origin

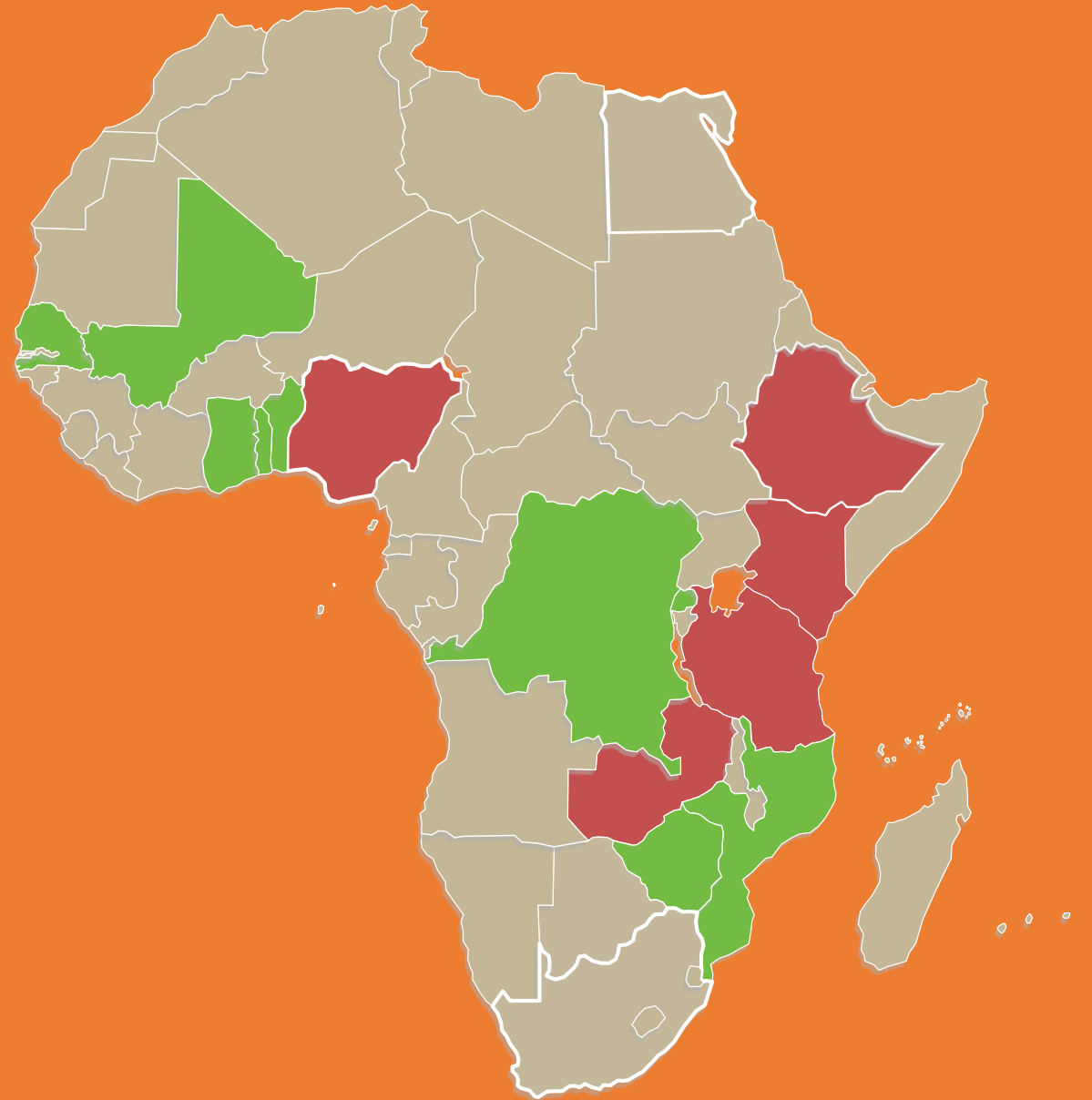
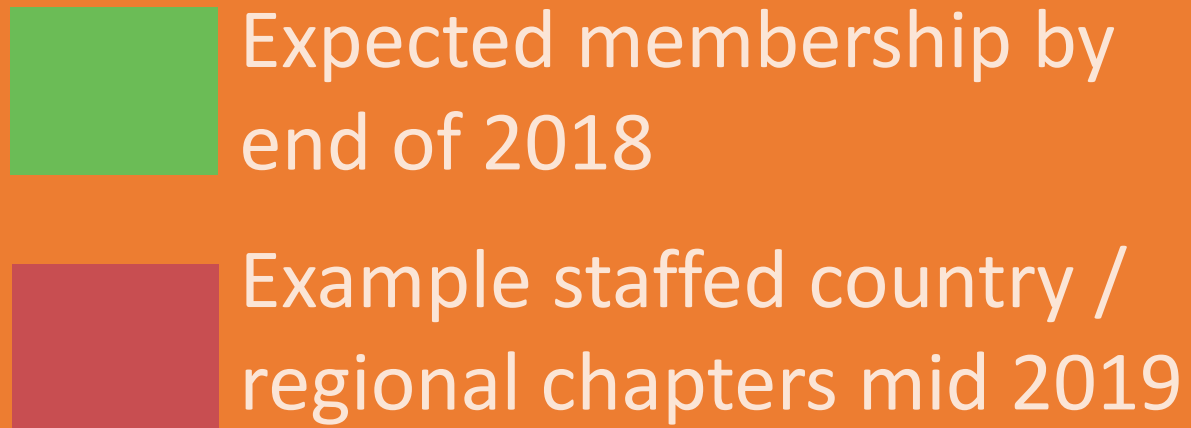
The Africa Minigrid Developers Association was created by minigrid developers and donors to improve political and financial understanding of, and support for, minigrids and the rural communities they serve.

Mandate and value addition

1. Create a benchmarking dataset for the sector based key performance indicators from hundreds of minigrid sites.
2. Provide guidance to financiers and policymakers on creating the best environment to reach clean energy access goals via:
 1. Integrated climate / energy planning and policymaking
 2. Building local markets and jobs with and for energy services



AMDA today and in the future



AMDA Minigrids today



Cost per connection 2018: \$938

Leveraging of public investment: 7 : 1

Only 14% of AMDA members' capital raised has been grants – the rest has been private investment in rural electrification.

Advantages of AMDA minigrids



More impact per investment dollar.

AMDA's costs are rapidly declining



Reliability and customer service.

AMDA's grids are on **97.8%** of the time



Rapid deployment.

AMDA Minigrids can be installed in 6 weeks

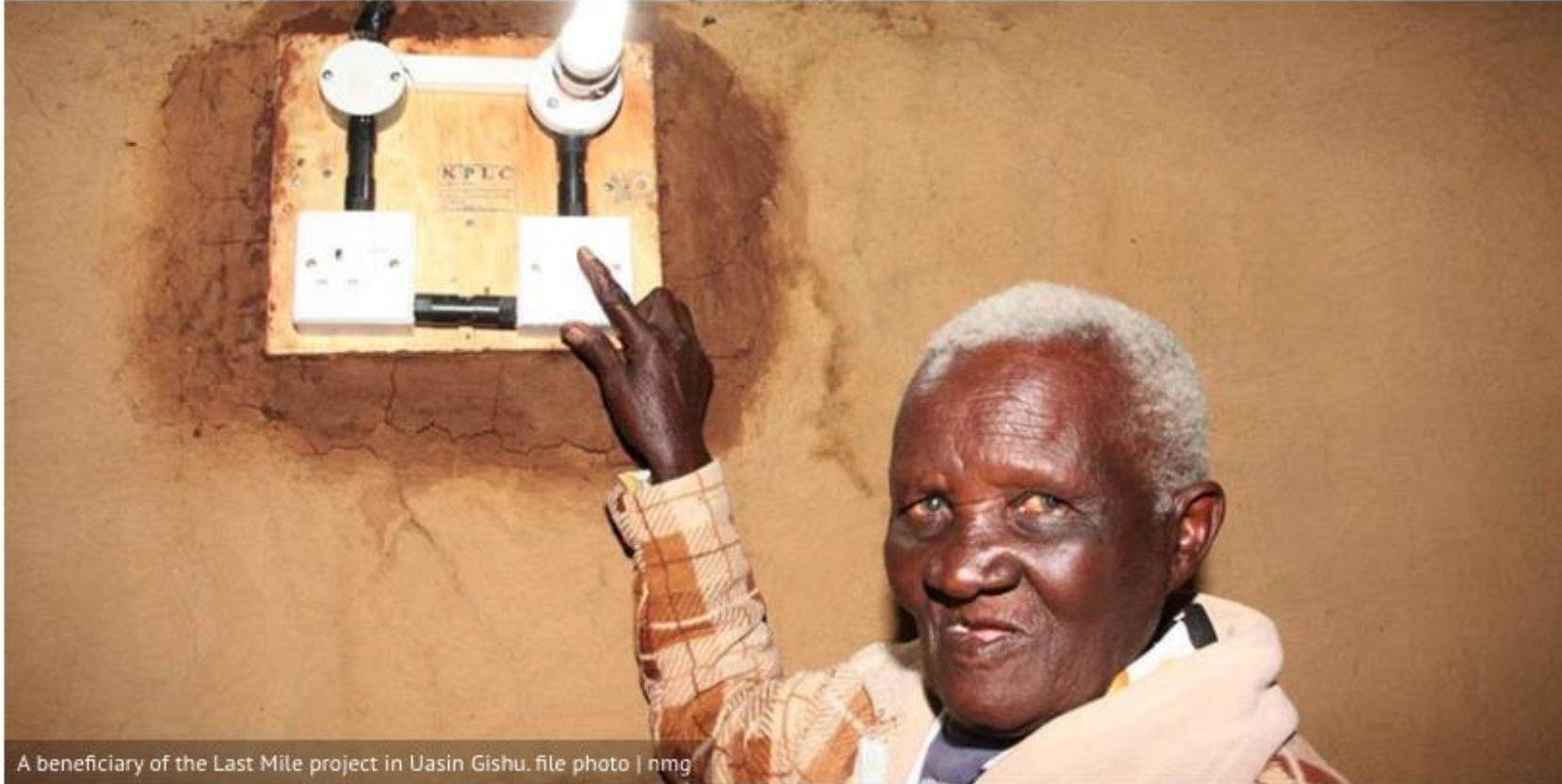


Go anywhere.

AMDA members are focused on rural and remote areas.

Connecting the poor hands Kenya Power Sh3bn debt

MONDAY, DECEMBER 3, 2018 9:53



A beneficiary of the Last Mile project in Uasin Gishu. file photo | nmg



The Jubilee government's race to connect poor households to the national electricity grid in the run-up to last year's election left Kenya Power **KPLC • 3.25** with Sh2.8 billion bad debts, the latest audit of the company's books found.



“Kenya Power found itself in a deep financial hole after more than 880,000 households ... did not consume the power, and did not pay for it.”

Minigrids yes! Subsidies... how?



Donors and Governments are asked
for two main types of support

Minigrids need supportive
regulation



There is broad consensus that
mini-grids **cannot attract**
investors if regulatory risk
remains high

Mini-Grids need subsidy



Donors and government
increasingly recognise need for
subsidy ,but there is little
consensus on what kind of
subsidy is required

The affordability gap is real – but not the root of the rural electrification challenge



Cost to
connect and
service rural
customers



Revenues
from rural
customers

This gap is not unique to Africa. It's generic to the history of rural electrification in every single country

Good development is good for business



	Private sector as SERVICE PROVIDER	Private sector as PARTNER
Advantages	<ul style="list-style-type: none">• Easy access to finance for grids (government backed)• Potentially easier to cross subsidize rural connections	<ul style="list-style-type: none">• High incentive to improve demand / rural economies• High incentive for good quality energy service• High incentive for good customer service• High incentive to improve efficiency / reduce costs• High incentive to bring external investment• High incentive to expand and create jobs
Disadvantages	<ul style="list-style-type: none">• Little incentive to improve demand / rural economies• Little incentive to improve quality• Little incentive for good customer service• Little options for communities left behind• Little incentive to increase efficiency / reduce subsidy• Little incentive to bring external investment• Little incentive to expand and create jobs	<ul style="list-style-type: none">• Difficult for companies to access finance (new sector) without support• Pricing can be political – but mostly happens only when politicians make it political – not a community issue.

Overcoming disadvantages of service provider model involves significant government & utility change, and are much more difficult to overcome than overcoming challenges in partner model.

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what we do



AMDA Program of work: DATA



TOPIC	CONTENT	AMDA Role
Sector Bench-marking	An analysis of aggregated site-level data from hundreds of AMDA member sites. This will include trends on cost reduction, OPEX reduction, revenue and consumption trends. Analysis of this data will be undertaken to draw lessons for: minigrid developers; national utilities; policymakers & regulators; and financiers.	Data provision Design advisory Co-authoring Dissemination
Grid vs Minigrid Economics	Using AMDA and African national utility data, CAPEX costs and performance of each will be compared to explore how to better build off their respective strengths and address weaknesses. This will include analysis of implicit national utility CAPEX subsidization.	Design advisory Data provision Peer review Dissemination
Subsidy Analysis	An analysis of OPEX subsidies and cross-subsidization received by national utilities. The objective is to explore what cost reflective national tariffs would be, but also what minigrid tariffs would be if they received OPEX subsidies similar to national utilities.	Design Advisory Peer Review Dissemination
Growing the Load	Using load data from our developers as well as that of select national utilities, we will take a deep dive into trends in load growth. This will entail working with NGOs and others focused on community empowerment, rural economy development, and microfinance, to establish best practices and further research needs in this space.	Design advisory Co-analysis Dissemination
State of the market	The Minigrids Partnership, co-hosted by the UN Foundation and ARE will be developing a global State of the Market report for the minigrids sector which we will co-steering.	Design advisory Co-analysis Dissemination

Program of work: Enabling Environment

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National Governments

Improving understanding of least cost option

Building Support for minigrids on reliability speed and cost grounds

more appropriate incorporation into integrated planning

Regulatory and policy guidance

Tarif and Subsidy Reform

Donors (National & International)

Increased & appropriate funding to minigrids

Increased support to integrated planning

Support AMDA in national level policy

Increased support for load growth

Improved understanding of why, how and when to invest

Concessional, Semi Commercial and Commercial Finance

Understanding the market and its trends

Improved coordination across instruments and institutions

increased access to infrastructure finance

Improved confidence in minigrids as long-term, bankable solutions.

Energy Financing, policy & planning consultants - a combination of all columns in this table

Workstreams within Programs of work



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Workstreams	Targets	Activities	Traction to date
Closing the market information gap	Commercial investors understand the Mini Grid companies business model and are investing in MG companies using debt facilities	<ul style="list-style-type: none"> • Building research partnerships • Fundraising for and building data platform • Collecting site/market data 	<ul style="list-style-type: none"> • 25 confirmed thought and action leading research partner institutions.
Aligning public support with rural electrification realities	Donors are using integrated least cost planning and investment tools as the standard for financial decision making.	<ul style="list-style-type: none"> • Bilateral engagement • Closed door meetings • Partnership building • Research and advocacy 	<ul style="list-style-type: none"> • Invited by AfDB to participate on RBF Advisory Council • Invited to steering committee of CrossBoundary / Rockefeller Innovation lab on load growth
Building conducive policy environments	Governments of Africa are successfully/effectively implementing integrated planning based on least cost option for electrification, and allow for cost reflective pricing	<ul style="list-style-type: none"> • National industry representation • National (NGO/sector) coalition building • Best practice sharing • Policy advocacy 	<ul style="list-style-type: none"> • Requests for policy / regulatory advice from existing industry groups and consultants working for governments • UNIDO requested formal policy/regulatory guidance partnership
Scaling access to commercial capital	Project and infrastructure type finance are very-well understood and accepted by key financiers by and/or infrastructure finance	<ul style="list-style-type: none"> • Financier coalition building • Thought leadership – papers / instruments / coordination • Advocacy 	<ul style="list-style-type: none"> • Coalition of impact funders rallied to begin group messaging to donors on securitization, project finance, de-risking, and more

We want to be a resource to you

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- Integrated planning to achieve rural dev (not only electrification!) goals
- Regulation formulation to attract investment and private sector
- Policymaking to accelerate deployment of energy in rural communities
- Raising finance for the private sector
- Growing the load

