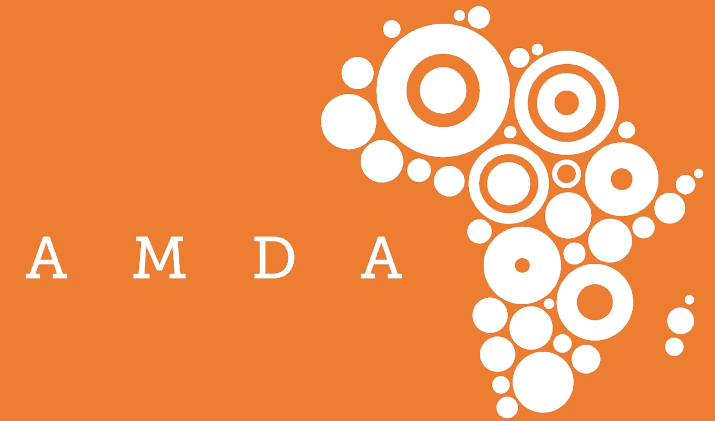


# African Minigrad Developers Association

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# About AMDA



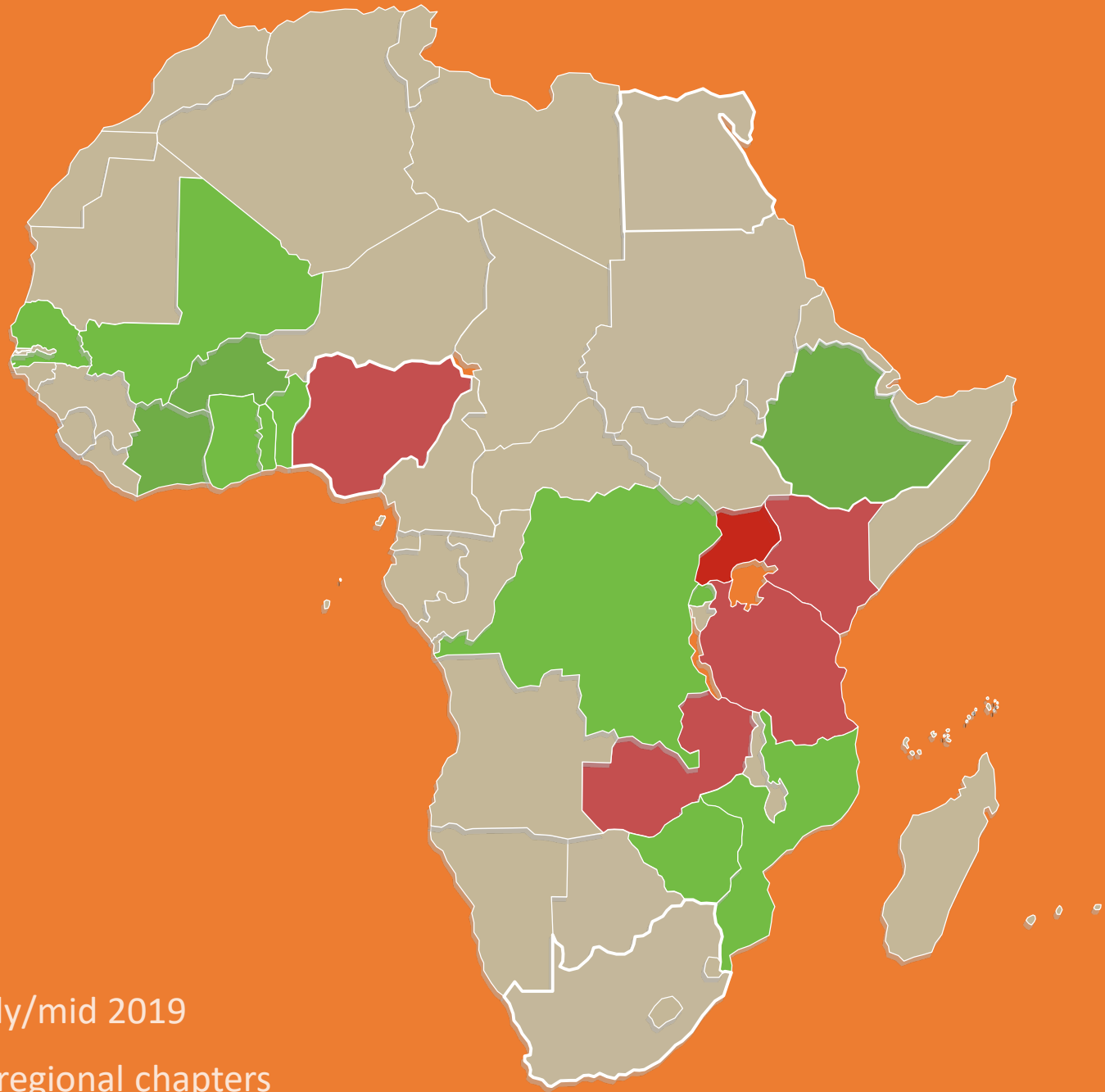
## Origin

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

-  Expected membership early/mid 2019
-  Example staffed country / regional chapters mid/end 2019



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steamaCO

WINCH ENERGY

Ensol  
Energy with a smile

AJIMA FARMS

powerhive

RVE.SOL

PowerGen  
RENEWABLE ENERGY

rafiki power

HUSK  
POWER SYSTEMS  
हरिक  
पावर सिस्टम्स  
तमसो मा ज्योतिर्गमय

# 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.

# Minigrids yes! Subsidies... how?

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Donors and Governments are asked  
for two main types of support

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Consensus on need for regulation is clear.  
Opinions diverge on the need for subsidy

---

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 is not the root of the rural electrification challenge

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*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

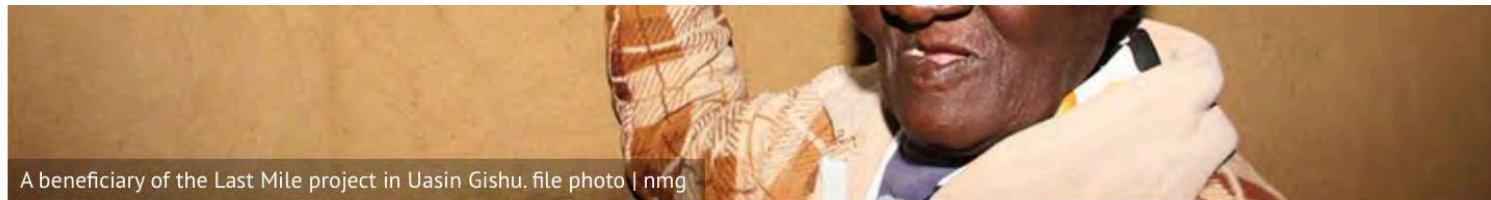


# Connecting the poor hands Kenya Power Sh3bn debt

MONDAY, DECEMBER 3, 2018 9:53



Kenya Power found itself in the deep financial hole after more than 880,000 households that were supplied with electricity and had prepaid meters fitted did not consume the power, and did not pay for it.



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 • 4.05 with Sh2.8 billion bad debts, the latest audit of the company's books found.

Kenya Power found itself in the deep financial hole after more than 880,000 households that were supplied with electricity and had prepaid meters fitted did not consume the power, and did not pay for it.

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what we do



# Workstreams within Programs of work



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

World Bank ESMAP  
African Development Bank  
Massachusetts Institute of Technology  
University of Massachusetts at Amherst  
Duke University  
University of Strathmore  
Rocky Mountain Institute  
Miller Center for Social Entrepreneurship  
CrossBoundary Energy  
REEEP  
LEDS Global Partnership  
IEA  
UNIDO  
NRECA  
GOGLA  
Alliance for Rural Electrification  
ALER  
Africa GreenCo  
Power for All  
United Nations Foundation  
Odyssey Energy Solutions  
Acumen  
REN21  
SEforAll  
CLASP / LEIA  
Lion's Head Global Partners  
IRENA

# AMDA Program of work:

## DATA



Define what data to collect, how to do it, and on what timeline

Define contractual relationship between AMDA and members on anonymity, IP and other interest protection

Advise research partners on data standardization, timelines, etc

How to share data and who to share it with

Develop research / data partnerships to further member interests

# AMDA Program of work: DATA

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TOPIC	CONTENT	AMDA Role
<b>Sector Benchmarking</b>	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
<b>Grid vs Minigrid Economics</b>	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
<b>Subsidy Analysis</b>	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
<b>Growing the Load</b>	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
<b>State of the market</b>	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





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