





October 2016 Edition



**FEATURES** 

# **Knowledge is Power: Data-Driven Development in the Mini-Grid Sector**

By: Emily Moder, VP Operations at Steama.co

Steama.co began as a mini-grid project developer in western Kenya, where it saw an urgent need for affordable, rugged energy meters that could collect reliable, real-time data from anywhere in the world a frontier meter. Today, Steama.co's smart metering platform helps mini-grid operators across eight countries address common pain points: payment collection, accurate forecasting, and, critically, a better understanding of their consumer base. In this article, Steama.co lays out a sample of its findings to illustrate how data can provide key insights to running a successful mini-grid.

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# **Transforming Energy into an Essential Service**

By: Barrett Raftery, Sr. Global Manager of GivePower Foundation

Launched in late 2013, GivePower Foundation is a charitable organization that uses clean energy technology to deliver essential community services to the developing world. For the first two years, GivePower Foundation focused primarily on bringing solar-powered lighting and mobile charging to remote off-grid schools in Asia, Africa, and Latin America. In February 2016, the Foundation introduced a global program to support the development of mini-grids – solar power and battery storage combinations capable of providing continuous power for communities in need. Although still in its early stages, the mini-grid program is focused on finding the intersection where accessible and dependable energy meet to improve a community's overall livelihood.

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# POLICY DEVELOPMENTS

#### **Nigeria to Finalize Mini-Grid Regulations**

The Nigerian Electricity Regulatory Commission (NERC) has revealed its plans to finalize developments on the regulation of mini-grids to boost energy access. The proposed regulation will minimize risks in tariff charges, as well as make permitting optional for mini-grid operators that distribute up to 100kW.

### Green Mini-Grid Perspectives in SEforALL Action Agendas: A look at how some African countries intend to develop this High Impact Opportunity

A forthcoming paper from the Green Mini-Grid Market Development Programme (GMG MDP) at the Sustainable Energy for All (SEforALL) Africa Hub will address "Green Mini-Grid Perspectives in SEforALL Action Agendas: A look at how some African countries intend to develop this High Impact Opportunity". The paper specifically looks at four East African countries, to determine the future role that GMGs might play in off-grid rural electrification.



**TOOLS & RESOURCES** 

## AfDB Mini-Grids Help Desk Now Open

The AfDB-hosted Sustainable Energy for All (SEforALL) Africa Hub launched a Green Mini-Grid (GMG) Help Desk during the 3rd International Off-Grid Renewable Energy Conference (IOREC). The GMG Help Desk provides on-line technical assistance on the myriad of activities important to the business cycle of developing and operating a clean energy mini-grid. The portal provides knowledge products and tutorials on setting up a mini-grid business, site selection, legal and compliance issues, mini-grid business models, technical system design, community and stakeholder engagement, financing, procurement, installation and commissioning, operation and maintenance.

IRENA Reports Highlight Technologies and Policies for Renewable Mini-Grids

During the biennial International Off-Grid Renewable Energy Conference in Nairobi, Kenya, IRENA

launched two reports highlighting recent and future renewable mini-grid technological innovations, and the policy and regulatory approaches that can further incentivise their deployment and help achieve universal energy access.

### IFC Unveils Web Portal to Support Renewable Mini-Grids in Tanzania

IFC, a member of the World Bank Group, launched a web portal to speed the development of mini-grids in Tanzania, helping the country boost its energy production and increase access to electricity through renewable sources such as solar and hydro. The portal, found at <a href="http://www.minigrids.go.tz/">http://www.minigrids.go.tz/</a>, provides licensing, financing, regulatory, and other information and support to small, renewable power producers in Tanzania who want to sell electricity to consumers, especially to the millions in the country not connected to the main grid.

# "What Size Shall it be? A Guide to Mini-Grid Sizing and Demand Forecasting" by GIZ

Produced by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), the 'Mini-grid Sizing Guidebook' aims at providing a quick understanding of the ruling principles of electricity demand assessment and mini-grid system sizing. For the successful implementation of mini-grids in rural areas, adequate load assessment and demand forecast, as well as subsequent system sizing, are essential. The economic viability of mini-grid projects depends on the size of the installed assets - and thus the investments - which need to be backed by a payable demand in the years after commissioning. A wrongly configured system (e.g. too small or too large) will either not serve its purpose or not recover the cost required to set it up.

## **FUNDING OPPORTUNITIES**

Malawi: Tender Invitation for Procurement for Energy Kiosks

Closing Soon

Tanzania: Results Based Financing (RBF) Grants for Renewable Energy Investments in Green Mini and Micro Grids - First Call 2016

Deadline: November 4th

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Ashden 2017 International Awards

Investments in Green Mini
and Micro Grids - First Call
international sustainable energy
trailblazer

Deadline: November 8th

## NEWS

#### Hybrid Renewable Mini-Grids A Potential \$200 Billion Market

Declining costs and improving performance are fueling rapid growth of renewable energy minigrids, particularly in rural and remote communities and areas. Worldwide, the nascent market for hybrid renewable mini-grids is potentially worth more than \$200 billion, according to a new study from the International Renewable Energy Agency (IRENA).

#### What Off-Grid Countries Can Teach Us About Clean Power

In some places, the business models used to bring electricity to rural and impoverished countries have a lot to teach the developed world as it struggles with its own electricity future. For one: Renewable energy projects are generally cheaper than building a fossil fuel burning

utility and stringing transmission lines across vast deserts and grasslands. Two: Smart meters and Internet of Things technologies make it easy to connect electricity users with their power usage and offer payment options such as pay-as-you-go. The result is pricing that makes electricity more obtainable.

## Here's How to Power Local Economies, Cleanly

A rush of innovation in off-grid energy markets linked to falling solar prices and mobile-enabled payment schemes has led to an upsurge in clean and affordable energy access for households in poor or remote communities. But how can this growth in household energy use be matched by 'productive uses' of energy those that power local farms and enterprises and help build the economy?

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## **EVENTS**

**HOMER International Microgrid Conference** 

November 7-8 New York, NY

3rd Africa Mini-Grids Summit 2016

November 28-29 Dar es Salaam, Tanzania **BGS Solar Summit** 

November 14-15 Nice, France

Solar & Off-Grid Renewables Solar Finance & Investment - Southest Asia

November 29 - December 1 Bangkok, Thailand Western Africa Power Indsutry Convention

November 23-24 Lagos, Nigeria

Africa Energy Forum
Off the Grid

December 6-8 Dar es Salaam, Tanzania

## CONTACT US

Send us your suggestions of news, events and updates for the newsletter at minigridnews@unfoundation.org.





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