



Mobile for Development
Utilities Programme
Catalogue of Grantees

FEBRUARY 2017



The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with more than 250 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai and the Mobile 360 Series conferences.

For more information, please visit the GSMA corporate website at www.gsma.com

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Mobile for Development

Mobile for Development brings together our mobile operator members, the wider mobile industry and the development community to drive commercial mobile services for underserved people in emerging markets. We identify opportunities for social and economic impact and stimulate the development of scalable, life-enhancing mobile services.



Mobile for Development Utilities

The Mobile for Development Utilities Programme improves access to basic energy, water and sanitation services in underserved communities using mobile technology and infrastructure. Our work encompasses any energy, water and sanitation service provided to a community which includes a mobile component, whether it is voice, SMS, USSD, Machine-to-Machine, NFC, a mobile operator's agent network or tower infrastructure. We aim to seize the opportunity, leveraging mobile technology and infrastructure to enhance access to affordable and reliable energy, clean and safe water and sanitation services in underserved communities. The GSMA Mobile for Development Utilities Programme receives support from the UK Government.

To ask any questions about our grantees or to contact them, and to find out more about our funding opportunities, please contact m4dutilities@gsma.com



This document is an output from a project co-funded by UK aid from the UK Government. The views expressed do not necessarily reflect the UK Government's official policies.

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Introduction

In 2015, there were 1.2 billion people without basic energy access,¹ 663 million without access to improved water services and 2.4 billion with no access to improved sanitation.² The challenges to providing universal access to utility services include last mile distribution, affordability, operation, maintenance, and payment collection. Furthermore, as urban growth stretches the limits of existing and antiquated infrastructure, millions more people across emerging markets are living with an increasingly intermittent and unpredictable supply of basic utility services.

While energy, water and sanitation access experience slow growth rates (between 1% and 2% per year for energy), GSM mobile networks are rapidly expanding at a rate of approximately 11% per year in rural locations.³ This has widened the existing gap between access to mobile and access to utility services. The scale and the reach of the mobile industry's infrastructure, distribution channels, mobile payments and technologies therefore offer new pathways to achieve improved access to utility services for underserved communities.

The GSMA's Mobile for Development Utilities programme (formerly MECS) was launched in 2013 with the support of the UK Government to explore the role that mobile technology and infrastructure can play in improving access to basic energy, water and sanitation services in underserved communities from urban to rural settings.

The specific objective of the Innovation Fund is to extract insights from the trial and scaling of these innovative models to inform three key questions for growing the sector:

- How can mobile support utility services?
- For a mobile-enabled solution to be adopted at scale, what building blocks are needed?
- What are the social and commercial impacts of delivering community services to underserved mobile subscribers?

1. GSMA, Mobile for Development Utilities, Nov 2014, "Mobile for Smart Solutions: How Mobile can Improve Energy Access in Sub-Saharan Africa", http://www.gsma.com/mobileforddevelopment/wp-content/uploads/2014/11/MECS2014_PROOF008_Single.pdf

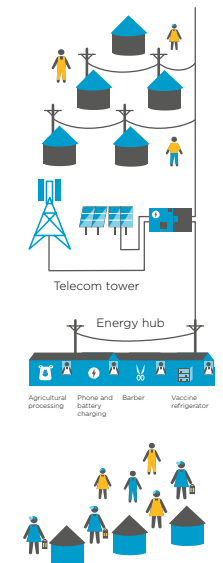
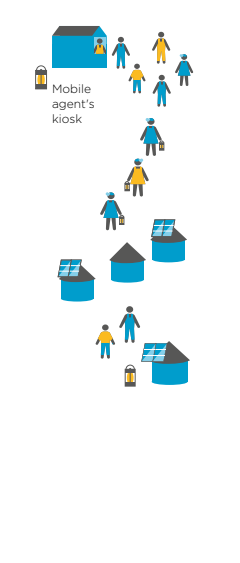
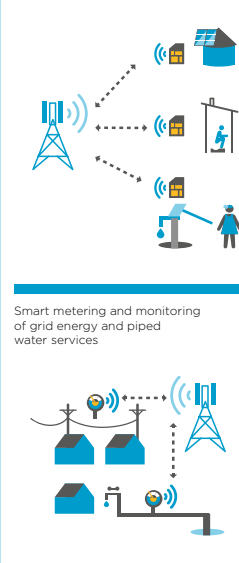
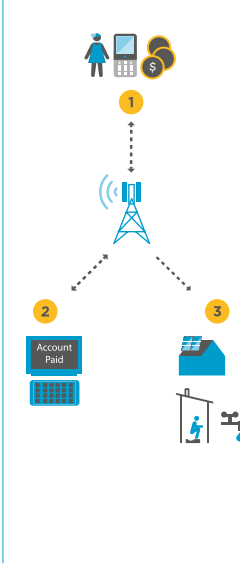
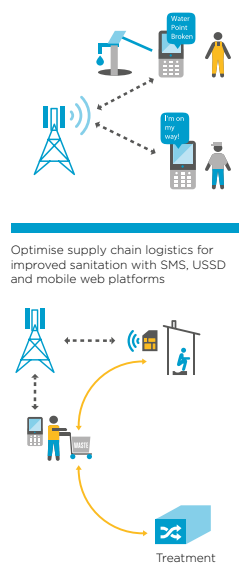
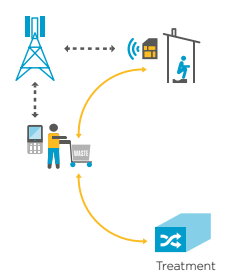
2. UNICEF, WHO, June 2015, "Progress on sanitation and drinking water: 2015 update and MDG assessment", https://www.unicef.org/publications/index_82419.html

3. GSMA, MECS, May 2014, "Predicting the future of Mobile-Enabled Community Services", <http://www.gsma.com/mobileforddevelopment/programme/m4dutilities/predicting-the-future-of-mobile-enabled-community-services-meecs-annual-report>

There are a number of ways in which mobile operators can leverage their assets to create new business models in the utilities space, using mobile technology

to support the solutions of innovative service providers. The M4D Utilities programme has identified the following five mobile channels.

Mobile channels for utility services

| <p>Mobile infrastructure</p> <p>The telecom tower acts as the anchor load for the energy service company (ESCO) that also supplies energy to surrounding communities via a microgrid and/or energy hub model.</p> | <p>Sales, distribution and branding</p> <p>The extensive footprint of mobile network operators' (MNOs) sales and distribution channels together with their recognisable and trusted brand can be leveraged to reach underserved customers with energy, water and sanitation solutions.</p> | <p>Machine-to-machine (M2M) connectivity</p> <p>Smart metering and monitoring of utility systems over GSM networks improves their lifetime and efficiency, triggers more responsive maintenance and repair, and provides insights into customer behaviour. It also enables on/off control of services to customers on a pay-as-you-go (PAYG) arrangement.</p> | <p>Mobile payments</p> <p>Mobile payments (mobile money services, SMS payments, airtime) can enable the development of PAYG models and other innovative financing schemes. In addition to supporting remote and secure collections, mobile payments can also create a digital record of payments, for those without a prior credit history.</p> | <p>Mobile services</p> <p>Mobile services (voice, SMS, USSD, apps) can be used by communities, village agents, and service providers to report service delivery status, improve field operations, optimise supply chains, or provide customer support.</p> |
|--|---|--|--|--|
| <p>Microgrid</p>  | <p>Leveraging MNOs' sales, distribution and branding</p>  | <p>Metering and monitoring of decentralised utility services</p>  | <p>Mobile payments for energy, water and sanitation products and services</p>  | <p>Two-way communication platform to collect and disseminate critical utility systems information</p>  <p>Optimise supply chain logistics for improved sanitation with SMS, USSD and mobile web platforms</p>  |

One of the key objectives of the M4D Utilities programme is to identify and support innovative mobile-enabled solutions that will improve the lives of many by providing access to affordable utility services. To date, 5.6 million GBP has been committed through the M4D Utilities Innovation Fund to organisations who

are leveraging mobile to increase or improve access to utility services. Overall, 385 unique applications were received, and the fund was 11 times oversubscribed with applicants requesting a total of 61 million GBP in grants, demonstrating the unfulfilled demand for additional risk capital to support early innovators.

Geographical spread of M4D Utilities grantees and their MNO partners



Two phases of the M4D Utilities Fund have been launched, awarding grants to a total of 34 organisations in 21 markets across Asia and Africa. This catalogue showcases these innovative and transformative solutions for closing the gap in energy, water and sanitation access. To date, M4D Utilities estimates the trials have impacted over 2.3 million direct beneficiaries in underserved populations around the world.

Our findings have revealed that this is an exciting time as now, more than ever, the proof of concept for using mobile to provide life-enhancing services to the underserved is being realised. As these innovators demonstrate, the time is ripe for mobile operators and other ecosystem players to partner and solve these challenges with commercial solutions.

PHASE 1

13 Grantees

As part of the first phase of the Innovation Fund between November 2013 and May 2015, the M4D Utilities programme awarded a total of 2.6 million GBP in grants to 13 organisations working on mobile-enabled energy and water services in Africa and Asia. The grants lasted 18 months and the results are published in individual case studies [available on our website](#).

The Innovation fund awarded two distinct types of grants in Phase 1:

Seed Grants to support the research and development of early stage innovations using mobile to increase or improve access to sustainable utility services in underserved markets.

Market Validation Grants to support partnerships between mobile network operators and/or tower companies with utility service providers to scale mobile-enabled business models to increase or improve access to sustainable utility services in underserved markets.

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Energy ASD

Name of project

Trialling the Community Power for Mobile Model in Kenya

Project location

Kenya

Type of grant

Seed

Grant awarded

Feb 2014

Partners

Airtel Kenya

Description

African Solar Designs, in partnership with Airtel Kenya, set out to provide renewable power to an Airtel base station and also electrify a nearby community through a micro-grid for businesses and an energy kiosk for households to access charging and solar products. This Seed Grant attempted to trial the community power for mobile model, generating lessons about this business opportunity for a rural energy service company.



“

ASD learned two key lessons about using base stations as anchor loads during this work. First, there is a huge difference between community energy access and 100% no-risk supply of power to large telecoms. Secondly, we learned that the A-B-C model has a large potential. However, until the idea is scaled, telecoms may not be first to invest. ASD's business model pursues mini-grid opportunities where there is a potential to reach both commercial clients and communities.

Mark Hankins

CEO, African Solar Designs, Ltd.

”

africansolardesigns.com





Energy EcoEnergy

Name of project

Distribution of solar pay-as-you-go in Pakistan

Project location

Pakistan

Type of grant

Seed

Grant awarded

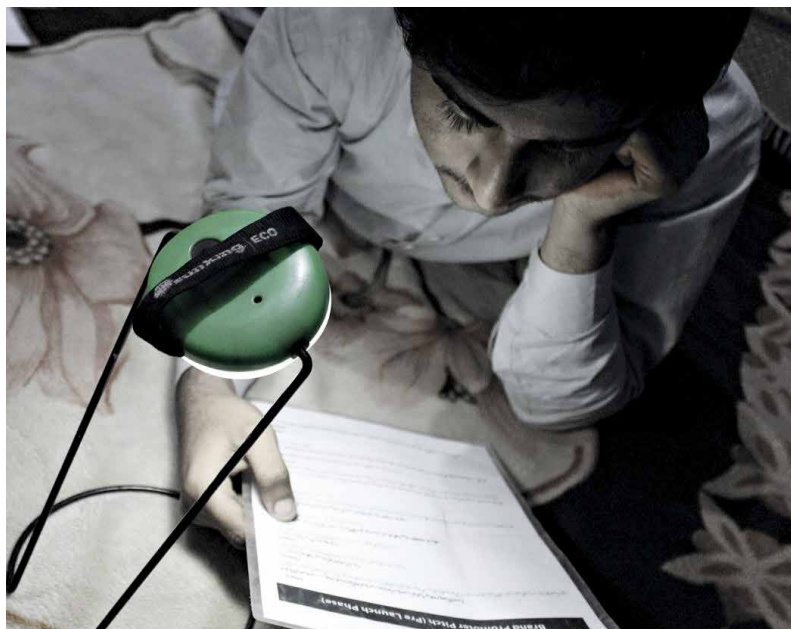
Feb 2014

Partners

UBL Omni

Description

EcoEnergy tested the viability of its distribution models for PAYG solar lanterns and solar home systems (SHS) in Pakistan. EcoEnergy used UBL Omni's mobile money service to collect payments; tested the utility of a global roaming SIM versus a local SIM in its GSM-enabled SHSs; and evaluated the viability of distributing products that appealed to vastly different customer segments.



The grant from the GSMA was crucial for us in determining the viability of PAYG solar technology in the context of Pakistan. Based on this experience, we've shifted our product line to be made entirely of PAYG solar products and appliances.

Jeremy Higgs

Co-founder, EcoEnergy



ecoenergyfinance.org





Energy Emergence BioEnergy / Grassroot Energy

Name of project

Energy from biomass for telecom towers and communities in Bangladesh

Project location

Bangladesh

Type of grant

Seed

Grant awarded

Feb 2014

Partners

Grameenphone

Description

Emergence BioEnergy (EBI), in partnership with Grameenphone, tested EBI's Stirling generator to produce electricity from agricultural waste for telecom towers and surrounding communities. This Seed grant trialed reliable power generation by small-scale biogas plants and tested the supply chain.



“

The GSMA's grant enabled the trial of a promising high-risk new technology. This proved to be an extremely ambitious goal for a 12-month project because EBI tried to solve technological, operational and business challenges all at once. Nonetheless, the trial led to important learnings, including the need for a high level of on-ground technical expertise, existing barriers in the fertiliser market and infrastructural challenges in generating electricity from biomass.

GSMA
2015

”



Energy Fenix International

Name of project

Scaling pay-as-you-go solar in Uganda

Project location

Uganda

Type of grant

Market Validation

Grant awarded

Feb 2014

Partners

MTN Uganda

Description

Fenix International, in partnership with MTN Uganda, scaled their new pay-as-you-go system “ReadyPay Power” to enable solar-powered lighting and phone charging. This Market Validation grant tested the introduction of ReadyPay home and business products through joint marketing and distribution with MTN.



“

People perceive MTN as a strong, authentic brand. They associate MTN with quality. In a market that has been abused by cheap, low quality products, the MTN brand provides Fenix with more acceptance than if we were selling on our own. Whenever we show up in an MTN van, a crowd assembles and we have an audience to talk to about Fenix.

MTN also benefits from its association with Fenix. We have had many people say that MTN cares for them because it goes beyond the normal practice of pushing airtime and connections. It solves a critical need by bringing them safe and affordable energy.

Calvin Kaumi

National Sales Manager for Fenix

”

fenixintl.com

 fenix intl

Energy Kamworks

Name of project

Introducing GSM-enabled PAYG solar in Cambodia

Project location

Cambodia

Type of grant

Seed

Grant awarded

Feb 2014

Partners

Cellcard, WING

Description

Kamworks Limited, in partnership with WING, a mobile money operator, and CamGSM (through its Cellcard brand) tested the sale and rental of solar home systems in Cambodia. The Seed grant helped trial the technology, test the value proposition and study payment behaviour in the Cambodian market.



“

Thanks to GSMA, Kamworks has been able to complete the development of its PAYGO solar home system technology and to demonstrate it in the field, making solar more affordable and accessible to rural households in Cambodia.

Jeroen Verschelling

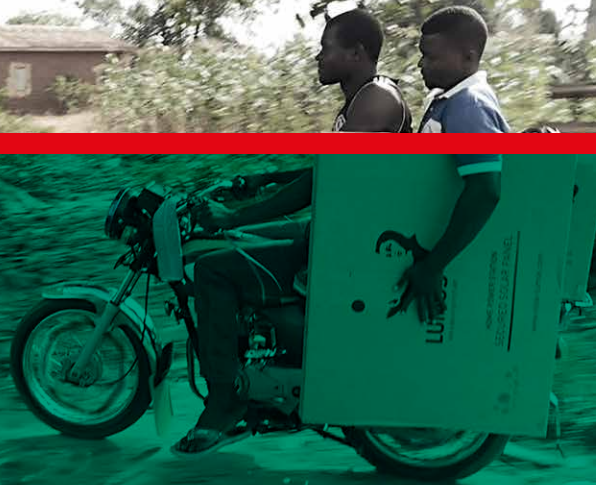
Chairman and Co-Founder, Kamworks Ltd

”

kamworks.com



Energy Lumos



Name of project

Pay-as-you-go solar in Nigeria with MTN

Project location

Nigeria

Type of grant

Seed

Grant awarded

Feb 2014

Partners

MTN Nigeria

Description

Lumos partnered with MTN Nigeria to launch a new pay-as-you-go solar product that used airtime for pre-payments. In this Seed Grant, large and modular solar home systems were targeted to home and small business users. Lessons were generated about customer demand and pricing in these markets and benefits to mobile operators playing a significant role in the partnership.



“

Digital inclusion of any kind is underpinned by consumer access to electricity. We therefore view our partnership with Lumos as an essential enabler in the attainment of MTN Nigeria's strategic vision of delivering a bold new digital service for its customers.

Henry Okoede SM

Business Development
MTN Nigeria

”

lumos-global.com



Energy M-KOPA

Name of project

PAYG Solar for small entrepreneurs in Kenya

Project location

Kenya

Type of grant

Market Validation

Grant awarded

Nov 2013

Partners

Safaricom

Description

M-KOPA, in partnership with Safaricom, trialed a new pay-as-you-go solar product in to the Kenyan market targeted at small entrepreneurs. The Market Validation grant tested whether the repayment behaviours of the target customers are strong enough to support further credit-based energy financing for SMEs.



We're incredibly proud to have been an anchor partner for M-KOPA Solar and see this Kenyan success story go global. The true power of mobile technology lies in its ability to enable access to essential services for millions of people. M-KOPA's ability to offer affordable, safe and clean energy through a mobile solution has enabled us to create the genesis of a new economy that promises to include groups who have been previously marginalized.

Bob Collymore

CEO, Safaricom Limited.



m-kopa.com

M-KOPA SOLAR



Energy Mobisol

Name of project

Pay-as-you-go Solar for
Entrepreneurs in Rwanda

Project location

Rwanda

Type of grant

Market Validation

Grant awarded

Nov 2013

Partners

MTN Rwanda (MTN
mobile money)

Description

Mobisol, in partnership with MTN Rwanda, introduced prepaid solar home systems into a new market, Rwanda, using MTN Mobile Money for the repayment of monthly instalments. The Market Validation grant trialed the acceptance of prepaid solar products by entrepreneurs in Rwanda, who base their business case on the productive use of these products. The impact on mobile money adoption and airtime usage was also monitored.



“

Together with GSMA, we've created productive-use opportunities for thousands of Rwandese micro-entrepreneurs. The MobiCharger is a real value proposition – with an additional income of \$35 per month it fosters economic activity and has a long-term impact on rural communities.

Thomas Gottschalk
CEO Mobisol Group

”

plugintheworld.com/mobisol/product/

mobisol 
Prepaid Energy

Energy

Persistent Energy Ghana

Name of project

Licensing Solar-as-a-Service in a New Market

Project location

Ghana

Type of grant

Market Validation

Grant awarded

Feb 2014

Partners

Tigo, Airtel, MTN

Description

Persistent Energy Ghana, in partnership with Tigo, Airtel and MTN, provided pre-paid solar energy services to six villages in Ghana using a micro-grid system and solar home systems within one business. Both technologies had already been tested and were being used in Tanzania. This market validation grant tested the possibility of scaling an energy service business in a new market more quickly by applying proven, third party technologies.



“

GSMA's grant gave PEG the ability to experiment, make mistakes, and take risks. This was exactly what we needed in order to figure out the kinds of things that would make licensing for off-grid solar work effectively.

Hugh Whalan
CEO, PEG

”

pegafrika.com



Energy Telenor Pakistan

Name of project

PAYG energy in Pakistan

Project location

Pakistan

Type of grant

Seed

Grant awarded

Feb 2014

Partners

Tameer Bank

Description

Easypaisa, a joint venture of Telenor Pakistan and Tameer Bank introduced an affordable solar energy service to low income groups through vendor partners who either sold or rented solar home systems. The Seed grant helped Easypaisa to validate the business case for its unique offering that leveraged its extensive distribution network and mobile money service. The grant also enabled Easypaisa to refine its methodology to identify credit worthy customers.



“

In this day and age, where every four months a technology is declared obsolete, it is unfortunate that many in Pakistan are deprived of the basic need to light a bulb in their houses.

Easypaisa, since inception has been dedicated towards empowering societies; partnering with solar to bring electricity, a basic necessity, to many households was considered quite a worthy opportunity. We have brought brightness to many households and this has only been made possible with the help of GSMA's generous grant. We are proud to be a payment partner in this cause and look forward to expanding these projects to an even bigger stretch of population in the future.

Muhammad Yahya Khan

Chief Financial Services Officer, Easypaisa

”

easypaisa.com.pk


easypaisa
بدلے زندگی آسان سے



Water Development Workshop Angola

Name of project
Missed Calls for
Monitoring Community
Water Services

Project location
Angola

Type of grant
Seed

Grant awarded
Nov 2013

Partners
SeeSaw

Description
Development Workshop Angola, in partnership with SeeSaw, trialled a suite of mobile-enabled tools to evaluate the effectiveness of peri-urban water delivery in Huambo. The Seed Grant tested the use of mobile technology to report service delivery issues in informal settlements leading to improved maintenance and service delivery.



“

The Luanda Government has shown continued interest in VerAgua and is now supporting the replication of the services there, with the lessons learned from this pilot leading to improved design and implementation. Implementation in Luanda began in August 2015 for reporting on the status of the city’s network of community water points. To date, caretakers have reported more regularly and funds have been made available for timely repairs.

GSMA
2015

”

dw.angonet.org



Water NextDrop

Name of project
Water.Simplified

Project location
India

Type of grant
Seed

Grant awarded
Feb 2014

Partners
None

Description

NextDrop built and trialed a Water Information System for the Bangalore Water Supply and Sewerage Board (BWSSB) to track, monitor and validate water distribution timings, frequency or duration in real time in 40% of the city. The system is based on two-way communications between BWSSB and city residents. This Seed grant tested whether real-time information improves the reliability of water supply and ensures equitable distribution.



“

The key objectives of the grant were to fund the development and deployment of an information system to make the operations of the Bangalore Water Supply and Sewerage Board more transparent, improve service levels and make water distribution more equitable. Despite challenges such as a valvemmen's strike and an outdated piped network map, NextDrop achieved its targets on schedule with key lessons on the acceptance of smartphones among first-time users and incentives to motivate adoption of a technology solution.

GSMA
2015

”

nextdrop.co



Water

Portland State University

Name of project

GSM-enabled sensors for monitoring handpumps to improve water services in Rwanda

Project location

Rwanda

Type of grant

Seed

Grant awarded

Nov 2013

Partners

Living Water International

Description

Portland State University, working in partnership with Living Water International (LWI) and SweetSense Inc, and with support from MTN Rwanda and the Government of Rwanda, conducted a pilot of Machine-to-Machine, GSM- enabled sensors to monitor functionality of LWI managed hand pumps for improved maintenance. The Seed Grant sought to demonstrate the cost effectiveness of using real-time information to improve maintenance services for reduced downtime and improved functionality of rural hand pump services.



“

With support from GSMA, we were able to demonstrate that cellular connected sensors can help improve water point servicing in rural villages in Rwanda. Together with Living Water International, we were able to increase water pump functionality from an average of 56% to over 91%. Critically, we showed that this approach can be more cost effective when considering the value of reliable water services to communities.

”

Evan Thomas
Associate Professor at Portland State University and Founder of SWEETSense Inc.

pdx.edu/sweetlab/sweetsense



PHASE 2

21 Grantees

In the second phase of the Innovation Fund, taking place between May 2015 and early 2017, the M4D Utilities programme awarded 21 grants, for a total value of 3.4 million GBP. The fund saw a 30% increase in applications from Phase 1, reflecting the maturing market and increased appetite for mobile-enabled products and services to solve these challenges.

In Phase 2, the Innovation Fund expanded its scope to include sanitation in addition to energy and water. The M4D Utilities programme estimates that up to 1.8 billion of the 2.4 billion people lacking access to private, safe sanitation facilities are covered by mobile networks. While mobile-enabled sanitation is a more nascent sector than water and energy, mobile certainly has a role to play towards expanding universal access to safe sanitation services.

Furthermore, Phase 2 introduced a new type of grant, **Utility Partnerships**. These grants support partnerships between a solution provider/innovator and a utility and/or a government agency. These grants allow the trialling of mobile-enabled services at a larger scale, reaching greater numbers of beneficiaries.

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Energy Brighterlite Norway AS

Name of project
Pilot sales of solar home systems in Myanmar

Project location
Myanmar

Type of grant
Seed

Grant awarded
May 2015

Partners
Telenor Myanmar

Description

Brighterlite, in partnership with Telenor Myanmar, will provide solar home systems through a fee for service model, using Telenor Myanmar’s agent network for acquiring customers and collecting payments. The Seed Grant will test the viability and impact of launching a mobile-enabled service in a green-field market.



“

Brighterlite is testing mobile-enabled sales of renewable electricity to off-grid households in Myanmar. It is a challenging country to do business in, but the GSMA grant will certainly enable us to road-test our product and service offering and our payment solution.

Martin Hamann
CEO, Brighterlite Myanmar

”

brighterlite.net



Energy

d.light

Name of project

d.light Solar as a Service:
Affordable Energy Access
in Haiti

Project location

Haiti

Type of grant

Market validation

Partners

Re-Volt

Description

d.light has developed a business model designed to simultaneously drive mobile money adoption and expand energy access in Haiti. In partnership with Re-Volt, d.light will offer energy as a service to customers, leveraging Digicel's existing network of Tcho Tcho mobile money agents as points of sale for their energy as a service offering. Part of the process of registering an account with Re-Volt will include registering for a mobile money account. This Market Validation grant will test how the adoption of d.light's energy offering will drive adoption of mobile money, providing a use-case for maintaining an active account over time.



“

Through this project, we are hoping to demonstrate that PAYG solar can drive mobile money adoption in markets with low mobile money penetration. This will show that the viability of the PAYG business model is not limited to countries that already have vibrant mobile money markets.

Karl Skare,
Director of New Business Initiatives, d.light

”

d.light.com



Energy

Devergy East Africa Ltd

Name of project

Accelerating commercially sustainable and scalable rural electrification through the installation of low-cost, scalable, solar PV-based micro-grids in partnership with mobile service providers

Project location

Tanzania

Type of grant

Market Validation

Grant awarded

May 2015

Partners

Tigo Tanzania

Description

Devergy, in partnership with Tigo Tanzania, will scale their low-cost solar-PV micro-grids to provide access to basic lighting, charging and appliances to rural communities. This Market Validation grant will test the opportunities to integrate energy distribution with mobile distribution including the impact on mobile phone usage and mobile money uptake.



“

We are very proud to be contributing to the growth of the rural energy sector in East Africa, and are confident our partnership with Tigo will grow well beyond this initial step.

Fabio De Pascale

Chief Energising Officer, Devergy

”

devergy.com



Energy

Dialog Axiata PLC

Name of project
MPOWER

Project location
Sri Lanka

Type of grant
Utility Partnership

Grant awarded
Sep 2015

Partners
Lanka Electricity
Company (LECO)

Description

The objectives of this project are to offer smart metering to the domestic market and improve power distribution network monitoring capability. The smart meters will also be used to introduce a prepaid metering facility to the Sri Lankan market. The project will run in an identified Green Energy Zone where 3200 smart meters will be deployed with 10% operating in prepaid mode. In addition, about 144 distribution network monitoring points will be established within the zone.



“

With this funding Dialog will leverage its state-of-the-art mobile technology and services to improve access to electricity as we strive to influence national level adoption of smart metering, prepaid metering and power distribution network monitoring in Sri Lanka.

Supun Weerasinghe
Director/Group Chief Executive
Dialog Axiata PLC

”

dialog.lk



Energy

Gham Power Nepal Private Limited

Name of project

Khotang Microgrid
Extension to power
Telecom and Additional
Community

Project location

Nepal

Type of grant

Seed

Grant awarded

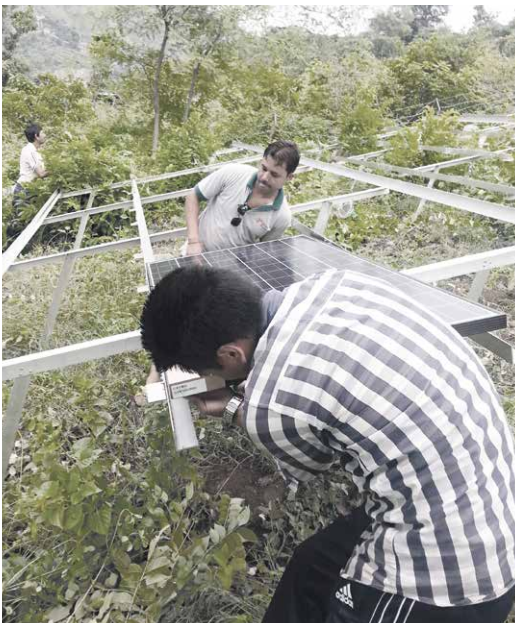
May 2015

Partners

Ncell, eSEWA

Description

Gham Power, in partnership with Ncell, will install solar micro-grids to provide energy to mobile towers, households and businesses, bringing energy access and mobile connectivity to remote communities in Nepal. This Seed Grant will test the impacts of mobile access and energy access on local businesses and the financial viability of this business model.



“

We are excited about the impact of introducing access to electricity, telecom and data to these areas all at the same time. Enabling an inter-related suite of new services and their collective viability under the current financing structure can set an example for rural electrification and telecom services.

Barrett Raftery

VP of Business Development,
Gham Power

”

ghampower.com



Energy

KopaGas

Name of project

KopaGas PAYG LPG Meter

Project location

Tanzania

Type of grant

Seed

Grant awarded

Sep 2015

Partners

SCHI, Mobile Power, BCPIT, AGA, Auditax

Description

KopaGas is developing the next generation LPG canisters and meters equipped with M2M technology that will enable medium and low-income households to switch from dirty and expensive charcoal to ultra clean LPG. The business model eliminates upfront costs and allows women to pre-pay for the quantities of gas that fit their budget, improving greatly their economy and their family health.



“

Thanks to this grant, KopaGas will be able to finalize the development of our M2M technology required for a scalable model to sell cooking gas in small quantities, with the most convenience for medium and low income households.

Sebastian Rodriguez

Co-Founder and CEO, KopaGas

”

kopagas.com





Energy

ME SOLshare Ltd.



Name of project
SOLshare: Bottom-up rural electrification

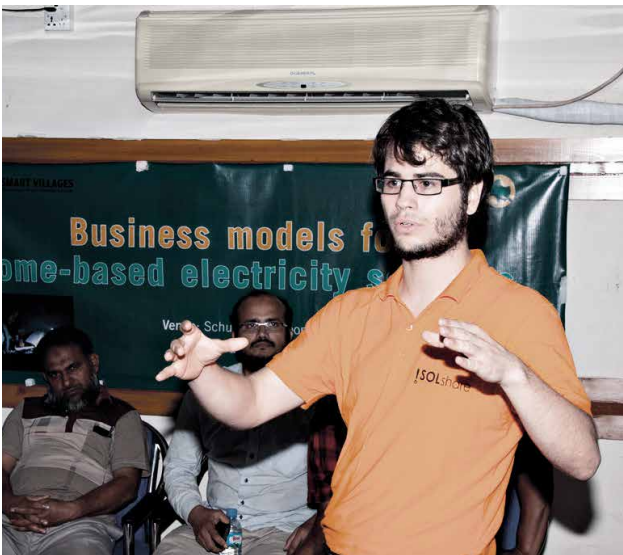
Project location
Bangladesh

Type of grant
Seed

Grant awarded
Sep 2015

Partners
None

Description
ME SOLshare has developed a smart grid concept that is targeted for the Global South and has been tailored to the Bangladeshi market: a smart DC microgrid that manages and meters power flows between rural households and businesses. Solar panels and decentralized storage systems are added incrementally in a step by step manner so that supply is guaranteed while avoiding sunk costs of earlier investment.



“

SOLshare sets up smart microgrids that manage and meter power flows between rural households, enabling increased electricity access for everyone. We may well be on the cutting edge of one of the most exciting energy opportunities of the 21st century.

Sebastian Groh
CEO, ME SOLshare

”

me-solshare.com



Energy Product Health Ltd.



Name of project

Remote monitoring and battery intelligence research trial

Project location

Bangladesh, Kenya & Tanzania

Type of grant

Seed

Grant awarded

May 2015

Partners

Bright Green Energy Foundation, Barefoot Power, Niwa

Description

Product Health will provide remote battery monitoring to three solar home system (SHS) manufacturers and distributors in Tanzania (NIWA), Bangladesh (BGEF) and Kenya (Barefoot Power). The Seed Grant will test the value of remote monitoring and Smart Batteries for producers and distributors of SHS for improving battery performance, reducing OPEX and supporting pre-emptive customer service and sales.

Copyright Product Health Ltd. **PRODUCT HEALTH**

Integrated Monitoring Kit: connect your hardware to the Smart Battery Service

The **Integrated Monitoring Kit** is a plug-and-play remote monitoring hardware solution for individual batteries. It means that Solar Home Systems (SHS) batteries can be connected to the Smart Battery Service in the Cloud to send data about themselves

- 1 **INTEGRATED MONITORING KIT**
The Battery Sensor, which measures Voltage, Current, and Temperature, and can be integrated inside the battery casing. The Control Hub, which stores, processes and sends data, sits on the outside of the battery case.
- 2 **RAW DATA**
Raw product data sent to the Smart Battery Service, which is archived on our servers.
- 3 **DEVELOPER API**
API to receive raw data from products and make the product intelligence available to customers.
- 4 **PRODUCT INTELLIGENCE**
Analyzed product data sent - the intelligence - is made available at Product Health API or Dashboard.
- 5 **DASHBOARD**
An interface to manage alerts, configure the product intelligence and view visualized data.
- 6 **ALERTS**
Alert services to detect events and send notifications to users.
Phone messages
Lighting messages
Radio/TV messages

Registered in England number 10637798 Registered office: Unit 20 Cavendish Studios, 222 Kent Road, London, E11 1RN

“

This funding is a fantastic opportunity to broaden our reach and learn more about our customer's real-world needs and requirements. It is also an opportunity to validate and demonstrate the business case for remotely connected and monitored batteries in the Solar Home System market.

Tamara Giltsoff

Founder Director, Product Health Ltd.

”

producthealth.com



Energy

SMS Energy Services Ltd

Name of project
 Demonstrate the Mobile4Energy solution in the Kiangurwe community

Project location
 Kenya

Type of grant
 Seed

Grant awarded
 May 2015

Partners
 Mobile4Energy, Airtel Kenya, My Green Electricity

Description
 Smart Metering Systems plc in partnership with Mobile4Energy, Airtel Kenya, and My Green Electricity, will develop and deploy a mobile-enabled turnkey meter-to-cash solution for utilities supporting rural electrification in Kenya. The Seed Grant will test whether by using an independent cross-sector mediation platform, mobile operators' existing prepaid billing and collections infrastructure can be used to service other industries such as utilities.



“

The Kiangurwe rural electricity project allows us to demonstrate Mobile4Energy’s turnkey Meter to Cash Prepay solution under the same conditions African and Asian Utilities are facing every day, reducing revenue leakage and overall cost to serve.

Jason Simpson
 Co-Founder,
 Mobile4Energy

”

mobile4energy.com



Energy SNV



Name of project

Bright Lights for Benin

Project location

Benin

Type of grant

Seed

Grant awarded

Sep 2015

Partners

MTN, Greenlight Planet

Description

The Bright Lights for Benin project will catalyse the PAYG solar market in Benin by linking Greenlight Planet PAYG products with a ready-made solar supply chain. The project builds on a successful 18 month partnership between SNV and MTN to develop a solar distribution network. It introduces PAYG solar to Benin for the first time and expects to sell PAYG products over 18 months via a sustainable business model. The government of Benin has agreed to provide tax exemption on all products imported under the project.

“

This initiative is perfectly aligned with MTN's philosophy of doing good business as a corporate citizen; it improves the livelihoods of our customers, reduces the use of unsafe and polluting products, and helps MTN expand its services.

Nicolas Gomez

Head of Corporate Services, MTN Benin

”

snvworld.org

SNV

Energy SunCulture



Name of project

Product development, Kenya field trials, and production setup for an affordable PAYG solar powered irrigation solution for small holder farmers

Project location

Kenya

Type of grant

Seed

Grant awarded

Sep 2015

Partners

None

Description

SunCulture designs and sells solar-powered irrigation systems that make it cheaper and easier for farmers in Kenya to grow high-value fresh fruits and vegetables. SunCulture is developing a solar powered irrigation system targeting the mass market of underserved small holder farmers, utilising pay-as-you-go technology to ensure affordability and thereby extending access to water pumping solutions to underserved communities in the developing world (starting with Kenya).



“

By 2030, our planet will be home to over 8 billion people. The world's 450 million smallholder farmers, most of whom live in the developing world, must adapt new technologies to keep up with growing food demands.

Samir Ibrahim
CEO, SunCulture

”

sunculture.com



Energy

Village Infrastructure Angels (VIA)

Name of project

Solar Light Industrial Centres (SLICs)

Project location

Vanuatu

Type of grant

Seed

Grant awarded

Sep 2015

Partners

Telecom Vanuatu Ltd,
ACTIV Association

Description

VIA's goal is to provide energy for lighting and productive uses to offgrid communities in developing countries. The use of telecom services and infrastructure has been well proven for small consumer-level loads like lighting, phone charging and TVs, but not yet for community-level productive loads such as agro-processing mills, refrigeration and carpentry tools. Vanuatu suffered a direct hit by a massive typhoon in March 2015, and these solar powered Light Industry Centres will help with reconstruction efforts.



“

Poor people in Sumba spend valuable long hours on relatively easy tasks such as milling of maize. Using VIA's small scale solar solutions can change the lives of these people drastically.

Eco Matser

Global Coordinator for Energy and Development, Hivos

”

villageinfrastructure.org



Village Infrastructure

Water

Africa Water Enterprises

Name of project
eWATERpay and eWATERtaps rural water supply revolution

Project location
The Gambia

Type of grant
Seed

Grant awarded
Sep 2015

Partners
Africell, Gam Solar, Village Development Committees

Description
Africa Water Enterprises will repair broken water systems and install eWATERtaps in villages in rural Gambia. Users buy eWATERcredit either directly onto NFC phones or via women water entrepreneurs using a tag. An App will allow retailers to buy credit directly from Africell via mobile money and convert this to water credit. Funds are used to pay for professional maintenance and repairs with the aim of overcoming the tragedy of broken water supply systems in villages.



“

We believe that this fantastic grant funding from GSMA will enable the eWATERtap to revolutionise rural water supplies in Africa, ending the current catastrophe of broken taps and hand pumps scattered across rural villages.

Alison Wedgwood
CEO, Africa Water Enterprises

”

africawaterenterprises.com



Water CityTaps

Name of project

Smart prepaid water meters for urban populations in Niamey, Niger

Project location

Niger

Type of grant

Seed

Grant awarded

Sep 2015

Partners

Société des Eaux du Niger (SEEN, operated by Veolia)

Description

CityTaps has developed a smart prepaid water meter to enable the urban poor to access running water at home. The meter incorporates mobile money and M2M technologies, which allows households to make micro-prepayments for their water at any time using mobile money. The project will see SEEN trial the technology across Niamey, Niger.



“

We're striving to improve the livelihoods of people living in cities without access to running water at home, by pushing the boundaries of social and technological innovation.

Grégoire Landel

CEO & Co-Founder, CityTaps

”

citytaps.org



Water

Lilongwe Water Board

Name of project

eMadzi - Using mobile technology to bring innovative payment solutions to peri-urban water supply in Malawi

Project location

Malawi

Type of grant

Utility Partnership

Grant awarded

Sep 2015

Partners

SeeSaw

Description

The project is about development of an alternative water payment solution for communal water points in peri-urban areas using mobile money. Use of water codes purchased through mobile money will enable water users to access water 24/7. Elimination of an intermediate water seller will lead to a reduction in water cost by 50%.



“

We are of the view that the whole community will benefit as a result of reduced water price due to roll out of those automatic vending devices.

Village Headman Mitengo of Area 22

”

lwb.mw



Water Manobi

Name of project

mWater™ Services to Improve Rural Water Service Performance in Benin

Project location

Benin

Type of grant

Utility Partnership

Grant awarded

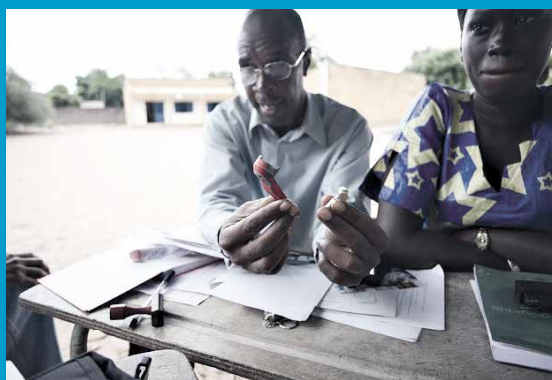
Sep 2015

Partners

MTN, AFEB

Description

mWater™ aims to improve rural and small town water pipe system (WPS) performance in Benin, and ultimately across Africa through the provision of (i) financial, (ii) business, and (iii) mobile payment solutions and mobile-to-web value added services to WPS operators.



“

The mWater™ platform enables better asset management and service analysis. Impressive scaling has been achieved through balancing a focus on water service providers' needs, with standardising reporting, implementing each component of the platform in a modular manner, and a public/private cost sharing business model for a financially sustainable service.

Sylvain Adokpo Migan

Senior Water and Sanitation Specialist,
the World Bank Benin

”

manobi.com





Water Safe Water Network

Name of project
Real-time Data for Improved Water Service Delivery - Ghana

Project location
Ghana

Type of grant
Seed

Grant awarded
Sep 2015

Partners
None

Description
Since its founding in 2006, Safe Water Network has focused on solving the twin challenges of drinking water quality and sustainability. A comprehensive model of water supply is anchored by the Safe Water Station – a community-level water treatment facility that produces high-quality water sold at affordable rates. This project will use mobile data collection to improve both the monitoring of water points and response to maintenance issues for better water service delivery to small towns and peri-urban Ghanaian communities.



“

We believe mobile monitoring will play a critical role in improving operations and reducing the costs of water service delivery for millions in need, served by Safe Water Network and others in the water sector.

Kurt Soderlund
CEO, Safe Water Network

”

safewaternetwork.org



Water Upande Ltd.

Name of project

Development and implementation of WaSHGIS 1.0

Project location

Kenya

Type of grant

Seed

Grant awarded

May 2015

Partners

BRCK, Kericho Water and Sanitation Company

Description

Upande, building from their previous work, will partner with BRCK and Kericho Water and Sanitation Company (KEWASCO) to develop and implement WaSHGIS 1.0, including a dashboard, job card, alert modules and low-cost solar-powered data loggers. The Seed Grant will test the value of a real time monitoring system to reduce non-revenue water losses for KEWASCO.



“

With the GSMA grant, we are able to transform our prototype into a real product, as well as help seed local low cost data logger development. The Internet of Things (IoT) for African utilities is becoming a reality, one month at a time.

Mark de Blois

CEO/Founder, Upande Limited

”

upande.com

Upande

Water Wonderkid Multimedia Ltd.

Name of project

Deployment of integrated mobile utility management system

Project location

Kenya

Type of grant

Utility Partnership

Grant awarded

May 2015

Partners

Kisumu Water and Sewerage Company, Kakamega-Busia Water Company, Nanyuki Water and Sewerage Company, Murang'a Water and Sanitation Company

Description

Wonderkid will customise and deploy the Integrated Mobile Utility Management solution to four water utilities (Kisumu Water, Muranga Water, Nanyuki Water and Kakamega Busia Water) in Kenya to support mobile meter reading, self-meter reading and complaint management. The Utilities Partnership grant aims to test the viability of using mobile-enabled solutions with various utilities to improve operational efficiencies and customer service.



“

We see this opportunity immediately benefiting over 800,000 Kenyans with improved water services and better quality of life by leveraging Mobile Technology - and millions soon thereafter.

Daniel Kamiri

Director, Wonderkid Multimedia

”

wonderkid.co.ke



Sanitation

Loowatt Ltd

Name of project

A Better Service: the Loowatt ICT Sanitation Platform

Project location

Madagascar

Type of grant

Seed

Grant awarded

May 2015

Partners

SAMVA Municipal Waste Treatment Facility, Pit Emptiers' Association

Description

Loowatt will develop and test an ICT platform and mobile application to improve the coordination of waste collection logistics and customer service associated to their waterless toilets for households in an urban area of Antananarivo, Madagascar. The Seed Grant aims to prove the value of ICT and mobile services on reducing the cost of waste logistics, improving the likelihood of safe waste disposal and collecting mobile payments from customers for their sanitation needs.

“

Our mobile ICT platform aims to empower local urban sanitation operators by improving cost efficiency and verifying the provision of safe and sustainable waste treatment.

Virginia Gardiner,
CEO, Loowatt Ltd.

”



loowatt.com

Loowatt



Sanitation Sanergy, Inc.

Name of project
Mobile Sensors for Improved Efficiency in Waste Collection

Project location
Kenya

Type of grant
Seed

Grant awarded
May 2015

Partners
SweetSense

Description
Sanergy, in partnership with SweetSense, will develop and test the use of sensors to determine the fill levels of Fresh Life Toilets, operator-owned waterless toilets designed for informal settlements. The Seed Grant will aim to test whether sensor technology works in the sanitation environment and is appropriate to optimise waste collection routes and reduce operating costs.



“

In partnership with GSMA, Sanergy is testing how we can use sensors in our Fresh Life Toilets to optimize our waste collection process thus increasing the availability of toilets for users.

Ani Vallabhaneni
Co-founder, Sanergy

”

saner.gy





For further information please contact
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