Funding and fast-tracking health facility electrification in Sub-Saharan Africa

David Lecoque
CEO a.i., ARE
28 July 2020

Supported by:
The Alliance for Rural Electrification (ARE) is an independent international business association with the aim to promote a sustainable decentralised renewable energy industry for the 21st century, activating markets for affordable energy services, and creating local jobs and inclusive economies.

ARE currently unites 150+ committed and passionate companies active worldwide. Find out more about which ARE Members are active where with the ARE Off-Grid Matchmaking Platform.

It is the vision of ARE that by 2030, everyone in the world and in particular all rural populations in low- and medium-income countries should have access to affordable, secure and clean energy and energy services.
ARE Member Services

ARE helps on sector coordination and development by:

1. Market Intelligence & Business Development
2. Policy & Advocacy
3. Communications & Marketing

Read more here
## Today’s Agenda

### Opening Remarks
14.00 – 14.10
- **David Lecoque**, CEO a.i., ARE
- **Michael Franz**, Team Leader, GET.invest

### Session I: Best practices for electrifying rural health facilities with decentralised renewables
14.10 – 14.45

- **Moderator:**
  - **Jens Jaeger**, Policy & Business Development Manager, ARE

- **Speakers:**
  - **Chris Kanani**, Senior Business Developer, Winch Energy
  - **Mukabanji Mutanuka**, Country Manager, ENGIE PowerCorner Zambia
  - **Anjal Niraula**, CEO, Gham Power Nepal

### Session II: Funding and fast-tracking health facility electrification in Sub-Saharan Africa
14.45 – 15.30

- **Moderator:**
  - **David Lecoque**, CEO a.i., ARE

- **Panelists:**
  - **Rahul Srinivasan**, Energy Specialist, World Bank
  - **Tendai Mukurazhiza**, Chief Economist, Zimbabwean Ministry of Finance and Economic Development
  - **Emily McAteer**, CEO, Odyssey Energy Solutions
Call to Action - Roadmap for the DRE sector to survive and flourish in the wake of the COVID-19 crisis
April 2020

Activity 1
Webinar - “Ongoing initiatives and innovative solutions to electrify rural health facilities with decentralised renewables”
18 June 2020

Activity 2
Publication - “Best practices for electrifying rural health facilities with decentralised renewables”
Launch today!

Activity 3
Webinar 2 - “Fast-tracking and funding DRE electrification of health facilities in Sub-Saharan Africa”
Today!

Activity 4
TBD - Partner with ARE on health electrification work!
Join ARE’s Membership today!

Special offers for new incoming Members [joining] before 31 July 2020:

<table>
<thead>
<tr>
<th>ARE Membership Packages</th>
<th>Benefits</th>
<th>Condition</th>
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| **2020 Only**           | - 50% discount for 2020 Membership  
- Free Newsletter Article (worth 520€) with a readership of > 11k | None |
| **2020 + 2021**         | - 60% discount for 2020 Membership  
- Free Newsletter Article (worth 520€) with a readership of > 11k  
- Company promotion on social media | Membership fees for 2020 + 2021 to be paid in one go |
| **2020 + 2021 + 2022**  | - 100% discount for 2020 Membership  
- Free Newsletter Article (worth 520€) with a readership of > 11k  
- Company promotion on social media  
- 1 free ticket for EAIF 2021 (worth appx. 400€) | Membership fees for 2021 + 2022 to be paid in one go |
Get in touch with ARE to help you grow in the sector!

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MICHAEL FRANZ
Team Leader

GET.invest

Intro for ARE Webinar:
Funding & Fast Tracking Health Facilities Electrification
What is GET.invest?

- A European programme to support investments in decentralised RE in partner countries, currently sub-Saharan Africa and Caribbean
- Covers both on- and off-grid electricity, as well as clean cooking
- Supported by the European Union, Germany, Sweden, the Netherlands and Austria
- Hosted on the European multi-donor platform GET.pro and implemented by GIZ
Our Setup

Events and Information

- Information on countries, markets, and financing opportunities
- Networking and B2B events
- Partnering with associations

Advisory Support

- Advisory support to projects and companies for accessing financing via our Finance Catalyst, open for more!
- Trainings and capacity development, incl. for regulators and private sector
Our Covid-19 Support

Project and business advisory, adapted to Covid-19: Support with managing the crisis, focusing on financing challenges, incl. a fast-track. Currently 25+ clients receiving COVID-related support, open for more!

Business tools available online: Business continuity checklist and cash flow scenario modelling template

Other activities: Mapping of Covid-19 support opportunities with PFAN; events, incl. virtual “Energy Access Covid-19 Relief Summit” in cooperation with ARE, GOGLA and others; upcoming webinars and trainings
Thank You for Your Attention!

NAME
Michael Franz, Team Leader

E-mail: michael.franz@get-invest.eu

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Launch of ARE publication:

“Best practices for electrifying rural health facilities with decentralised renewables”

Jens Jaeger, Policy & BD Manager, ARE
28 July 2020

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Supported by:
Objective of the publication

Sharing evidence and lessons learnt on the ability of decentralised renewables (DRE) to fast-track delivery of sustainable and reliable power for rural health facilities in emerging countries.

Target audiences:
- International funding partners
- Philanthropies
- Governments
Main takeaways

Reliable electricity is a prerequisite to enable quality health services for every healthcare facility around the globe (e.g. medical refrigerators, sterilisers, ECG machines).

Decentralised renewable energy offers the cleanest, cheapest and smartest solution to electrify rural health care facilities in most cases.

Projects to electrify rural health care facilities must combine speed and scale of delivery in the short term, with project sustainability and longevity in the long term.

A number of delivery models based on public-private partnerships (PPP) & high-quality, innovative technologies can help strike this balance and crowd-in private capital.

In ARE’s view, short and long-term goals are best met through a PPP delivery model that combines smart grants with a market-based compensation mechanism (PPA).
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<thead>
<tr>
<th>Challenge</th>
<th>Recommendation</th>
<th>Stakeholder</th>
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<tbody>
<tr>
<td>Financial sustainability</td>
<td>Power-purchase agreement (PPA) between a public authority and the DRE operator</td>
<td>DRE operators; governments</td>
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<tr>
<td></td>
<td>![Lightning bolt] Guarantee schemes to support PPA</td>
<td>International funding partners (i.e. DFIs)</td>
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<tr>
<td>Technical sustainability</td>
<td>![Lightning bolt] Support high quality and innovative technology</td>
<td>International funding partners; governments; philanthropies</td>
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<td>![Lightning bolt] Capacity building programmes to train local technical staff to help sustain the O&amp;M of DRE solutions</td>
<td>DRE operators; governments</td>
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<tr>
<td>Social sustainability</td>
<td>![Lightning bolt] Inclusive project governance structure in partnership with local communities defining responsibilities, accountability and ownership</td>
<td>Governments; private sector</td>
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<td></td>
<td>![Lightning bolt] Streamline health care electrification projects with integrated electrification approaches</td>
<td>International funding partners; governments; philanthropies</td>
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<td>Speed &amp; scale of delivery</td>
<td>Smart grant mechanisms to de-risk private sector investment</td>
<td>International funding partners; philanthropies</td>
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<td>Concessionary debt facility to offer long-term and low interest loans in local currency.</td>
<td>International funding partners; philanthropies</td>
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<td>Inventory financing for DRE products, equipment and components</td>
<td>International funding partners; philanthropies</td>
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<td>Optimise procurement and import procedures and reduce bureaucracy existing programmes funded by international funding partners</td>
<td>International funding partners; governments</td>
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<td>Improve the availability of data through data gathering and mapping exercises</td>
<td>International funding partners; governments; philanthropies</td>
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<td>Set and enforce standards for quality electricity provision, consumer protection and project evaluation</td>
<td>Governments</td>
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Proposed funding & delivery model

**CAPEX**
- Private investors
- Intl. funding partners & philanthropies
  - Private capital
  - CAPEX grants / RBF grants

**OPEX**
- Intl. funding partners (i.e. DFIs)
  - Guarantee mechanism

- DRE operator
  - Beneficiary (Health care facility)
  - Main beneficiary (local community)
  - Client (government)

Figure 1: Proposed PPA model
**ARE case studies (2/3)**

- **ENGE PowerCorner**
  28 kWp solar mini-grid
  Zambia, Chitandika

- **Gham Power**
  200 kWp solar for hospital
  Nepal, Chitwan

- **GRID Alternatives**
  3.19 kWp solar for clinic
  Nepal, Jodhgaun

- **HT Energy**
  2.88 kWp solar-hydrogen for clinic
  Malaysia, Long Loyang

- **IDCOL**
  100-280 kWp solar mini-grids
  Bangladesh

- **Mlinda**
  25 kWp DRE mini-grids
  India, Gumla

- **NTUA (ICCS)**
  0.6 kWp wind for clinic
  Nepal, Mityal

- **Phaesun**
  14.4 kWp solar for hospital
  Eritrea, Asmara
ARE case studies (3/3)

**Resolve**

5-10 kWp health dispensaries

Malawi

**Ryse Energy**

8 kWp wind & solar mini-grid

Chile, Los Lagos

**Schneider Electric**

12 kWp solar for health centre

Nigeria, Dakwa

**Solergie**

0.3 kWp solar for health centres

Togo, Kamina & Brounfou

**Studer Innotec**

960 kWp solar for health centre

Colombia, Alta Guajira

**Trama TecnoAmbiental**

3.5 kWp solar for health facilities

Ghana, Northern & Volta regions

**WeCareSolar**

0.13-0.25 kWp solar suitcases

Liberia

**Winch Energy**

16-110 kWp solar mini-grids

Sierra Leone
Get in touch with ARE to help you grow in the sector!

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Session I

Best practices for electrifying rural health facilities with decentralised renewables

Chris Kanani
Senior Business Developer
Winch Energy

Mukabanji Mutanuka
Country Manager
ENGIE Powercorner Zambia

Anjal Niraula
CEO
Gham Power Nepal
Powering Health Centres
Winch Sierra Leone Case Study
ENGIE Africa approach to off-grid electrification & energy access

**SOLAR HOME SYSTEM**

ENGIE’S fully owned Pay-As-you-Go SHS subsidiary

Market Leader in **Uganda, Zambia & Tanzania**

Recent expansion into **Cote d’Ivoire, Nigeria & Benin, Rwanda & Kenya**

**Over 500,000 sales, Over 2,5 million lives impacted**

Expandable SHS starting with 10-200W; focus on upgrades across power systems, financial services, & agricultural products

**MINIGRIDS**

ENGIE’s fully owned Pay-As-You-GO offgrid minigrids subsidiary

13 minigrids in operation in **Tanzania & Zambia**

Ongoing developments in other countries

**2500 connections, 12500 lives changed**

Modular blocs of 15 kW, 30 kW etc... generation unit & distribution network; Focus on productive uses, community development & services

**FENIX & MOBISOL**

**POWERCORNER**
Gham Power

Anjal Niraula
CEO
anjal@ghampower.com
Session II

Funding and fast-tracking health facility electrification in Sub-Saharan Africa

Rahul Srinavasan
Energy Specialist
World Bank

Tendai Mukurazhizha
Chief Economist Zimbabwean Ministry of Finance and Economic Development

Emily McAteer
CEO
Odyssey Energy Solutions
Key bottlenecks and next steps to fast track funding of health facilities electrification in Sub Saharan Africa

- Lack of Fiscal space- infrastructure required for electrification is expensive-especially on-grid: go for off grid solutions (solar, biogas, wind)
- Low productive use of electricity on rural areas- promote value addition at that small scale so as to create a demand for electricity (agro food processing)
- Low tariffs which are not cost recovery-go for cost recovery tariffs, and avoid subsidies, which create another burden for Government
- Privatise electricity provision-Rural Electrification Agencies within Governments, PPA
- Partner with NGOs and other development partners
- Encourage Corporates to electrify health facilities as part of their Corporate Social Responsibility
Emily McAteer
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Odyssey Energy Solutions
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World Bank
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