

Energy Access for the Urban Poor

Sukla Chandra

*ARE Board Member
Managing Director GE Ventures
and Licensing India*

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Alliance for
Rural
Electrification
Shining a Light for Progress



About the Alliance for Rural Electrification



- Established in 2006 and since summer 2017 **Proud Partner of SEforALL**, the **Alliance for Rural Electrification ([ARE](#))** is the only global business association that represents the whole **decentralised renewable energy sector for rural electrification in developing and emerging countries**.
- Roughly **1 billion people** – or about 13% of the world’s population – live without electricity ([IEA, IRENA, WB: 2018](#)), **~87 % live in rural areas**. ARE works to enable access to affordable, secure and clean energy and energy services for these people.
- As the off-grid matchmaking and knowledge sharing hub ARE provides RET and sustainable business solutions on the ground worldwide. With its concept of **Productive Use of Renewable Energy (PURE)**, ARE creates win-win situations for communities by combining international expertise and investment power with local contents and skills development for the benefit of socio-economic development.
- 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](#).

Members (end of 2018: 151 / +41)



ARE market access services in Asia

- 2/3 of ARE Members based in Europe, 1/3 based outside of Europe
- 55 % of ARE Members active in Asia, 19 Members based in Asia
- 2/3 of ARE Members focusing on mini-grids, PV, energy storage
- More info: [Off-grid Matchmaking Platform](#)

ARE MULTISTAKEHOLDER APPROACH



AGM: Annual General Meeting
WG: Working Group

- Knowledge Sharing & Promotion of Members' expertise
- Policy Dialogue & Advocacy
- Private Sector Cooperation & Match-Making
- Capacity Building & Training
- Finance Access & Funding

ARE Partnerships & Projects



ARE partners with international and national organisations, projects and initiatives, the media and other industry platforms.

Commercial Partners



Knowledge & Support Partners

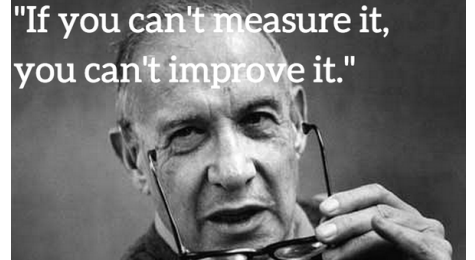


ARE Strategy: 2018-2022

ARE Mission Statement:

Building on SDG 7, ARE is there to enable its Members **building a 21st century sustainable decentralised renewable energy industry**, activating markets for affordable energy services, and creating local jobs and inclusive economies.

"If you can't measure it,
you can't improve it."



ARE objectives:

ARE will measure its future success on a sectoral/geographical basis using the broad metrics of:

- Addition of quality rural off-grid connections (homes / businesses / community / public)
- New distributed energy investments (partnership with/through ARE Members)
- New / improved local economic activity and jobs through energy access

ARE Workstreams and Focus Areas:

1. **Global Voice** – “speaking as one cohesive team” (Contact: [Ling Ng](#))
2. **Global association acting locally** - “global partnerships working locally” (Contact: [David Lecoque](#))
3. **Powerful partnerships** – “strength in numbers and common learning” (Contact: [Jens Jaeger](#))
4. **Fundraising** – “leveraging our Member base to unlocking capital” (Contact: [Marcus Wiemann](#))

ARE-OFID CfP: Success Story India



Mlinda (*Partners: Mlinda Charitable Trust, Vertéole*)

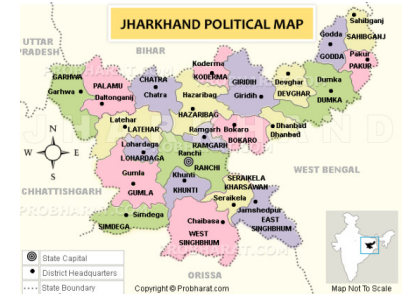
Project title: Scalable, replicable, clean rural electrification in Jharkhand, India

Project budget: 460,974 USD; **Final grant amount:** 224,422 USD

Project Description: Installation of three new hybrid mini-grids in three rural villages in India (Narotoli, Sahitoli, Pasanga)

Details (project fully implemented one year ahead of 24-months time plan)

- 81 solar panels of 300 watt peak capacity each, installed in Pasanga village
- 90 solar panels of 250 watt peak capacity each, installed in both Narotoli and Shahitoli villages
- Three 15 KVA diesel gensets (one in each village) installed
- 358 households connected (24/7 provision of electricity)
- 61 commercial outlets (poultry units) connected
- 57 productive users connected
- 65 direct and indirect jobs created within local communities
- Income increase of 10,6% in the villages, as a result of electricity connection



Join the Alliance today!

Why become an ARE Member?



Market your solutions to more than 50,000 off-grid contacts (e.g. via ARE [newsletter](#), [case studies](#), [matchmaking platform](#); [job platform](#))



Access the most recent market information via ARE weekly alerts every Friday with off-grid news, procurement and tender opportunities, event discounts and job opportunities



Access business matchmaking and off-grid contacts through ARE B2B events, work streams and direct B2B, B2F & B2G



Access markets & finance via ARE Partners and Members (case study: ARE-OFID project)



Get direct value for money via ARE event partnerships and exhibition discount offers



Influence policy via ARE and help shape the direction of decentralised renewable energy market in the future

How to become a Member?



Join ARE before 30.06.2018 and benefit from 50% discount!

Step 1: Fill in the [ARE Membership Form](#) and send it back to j.jaeger@ruralelec.org

Step 2: ARE Board of Directors to evaluate application and send response within a week

Step 3: Payment of annual ARE Membership fee

TYPE OF MEMBERSHIP		
Type of Membership	Annual turnover	Annual fee
Full Member	> 45 Mio. €	6,000 €
	> 5-45 Mio. €	3,000 €
	< 5 Mio. €	1,500 €
	Based in Africa, Asia, Latin- America (< 2.5 Mio. €)	1,000 €
	Start-up ²	500 €
Associate Member ³	Financial institution	2,000 €
	Academia, non-profit organisations & NGOs	1,000 €

GE Renewable Hybrid Power Solution

Modular, containerized, digitally-connected power solution for off-grid electrification

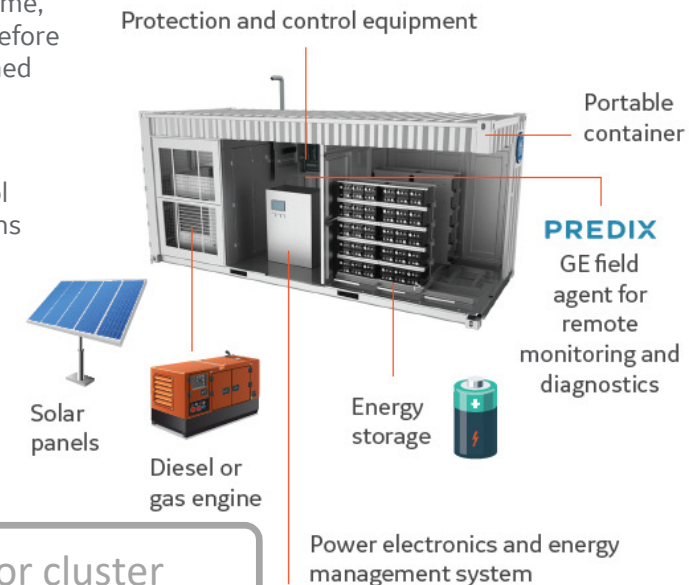


Features

- 20-foot enclosure with pre-configured components - diesel gen, storage, protection & control + power electronics—simply connect distribution lines to begin exporting power
- Easy external DC connection point for solar arrays
- Hybrid controller prioritizes renewable power to lower operating cost
- Cloud-enabled monitoring and diagnostics using Predix™ allows for remote supervision across multiple installations
- Temperature-controlled compartments ensure components remain at optimal operating conditions
- Quickly increase capacity either by paralleling multiple systems or adding incremental solar and energy storage
- Optional equipment includes weather monitoring—integrated into the solution's remote monitoring system—as well as interior/exterior lighting

Benefits

- Lower installation and commissioning time and expenditures
- Reduced operating cost and emissions versus diesel systems
- Quickly scale output to capture growing demand
- Achieve higher uptime, identifying issues before they cause unplanned downtime
- Enhanced ability to monitor and control multiple installations
- Operate reliably through a variety of environmental conditions



Ideally suited to provide reliable power to a single village or cluster

Energy access for the Urban Poor



Energy access is generally regarded as a rural issue, but the **urban poor** are also affected by lack of energy and poor electricity connections. About 13 % of the those without energy access (1 billion +) live in urban areas. This adds up to more than **130 million people globally in urban areas without energy access**.

Most of these live in slums in emerging countries. South Asia and Sub-Saharan Africa have the fastest growing urban populations in the world—projected to grow by 50 percent by 2025 ([ESMAP](#)).

Communities in peri-urban and poor urban areas often **face similar issues as rural ones** such as lack access to legal, safe, reliable and affordable electricity, especially as many people are not officially registered.

They also face security challenges by not having access to **street lighting** in the night.

In many cases, decentralised renewable energy solutions can therefore deliver reliable and affordable energy (e.g. with solar power).

ARE Case study: Solar street lights in Durumi, Nigeria



The Challenge

Durumi is a suburb district of Abuja, the capital city of Nigeria, which has about 2,5 million inhabitants. Electricity access is poor and **no street lighting was previously available** in area. The climate is warm and humid in the rainy season and as high as 40 °C in the dry season, which provides challenges in providing street lighting for increased security.



The Solution

ARE Member, Schneider Electric, installed 70 **Sunna Design (also an ARE Member)** UP2 streetlights throughout the district.







Sunna Design has developed and patented a breakthrough technology for Solar Streetlights that offers resistance to extreme climates. In operating conditions, these products are capable of guaranteeing 10 years of lighting service throughout the night, thanks to an architecture combining a Nickel based battery and a Smart Energy Management System.

The lighting service lasts all night long and does not suffer from blackouts.

Upcoming ARE activities in Asia in 2018



Partner	Activity	Location	Date
	Energy Storage China: ARE Microgrid Session	Tangshan, China	19 Sep 2018
	B2B Mini-grid Forum Manila (tbc)	Manila, Philippines	19-21 Sep 2018
	International Off-grid Renewable Energy Conference (IOREC IV) 2018	Singapore	31 Oct-1 Nov 2018
	Intersolar India: Off-grid Workshop	Bangalore, India	11-13 Dec 2018



To learn more and to join our activities, please contact: j.jaeger@ruralelec.org

We look forward to see you at the
**International Off-Grid Renewable Energy
Conference (IOREC IV)** in Singapore
(31 Oct – 1 Nov 2018)

**Alliance for Rural
Electrification**

Rue d'Arlon 69-71
1040 Brussels, Belgium
are@ruralelec.org
www.ruralelec.org

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1st OFID- ARE CfP: Risk mitigation crucial for upscaling Decentralised clean energies is a highly promising market



Objective: to identify / to implement up to 2-5 mini-grid installation / hybridisation in the developing world within 24 months

OFID Support: Grant of USD 990,000 to assist in de-risking mechanism for business ventures



ARE through its Members implemented a ready-for-purpose working structure

Milestone	Date	Result
OFID – ARE Signature MoU	4 Nov 2014	✓
ARE Publication of Call for Proposal	10 Febr 2015	✓
Deadline for submission of applications (11 applications received)	17 Apr 2015	✓
ARE Administrative Assessment Report	29 Apr 2015	✓
ARE Evaluation Report	08 Jun 2015	✓
ARE Grant Application	19 Jun 2015	✓
OFID Governing Board Decision (4 projects approved; grant contracts signed in Nov 2015)	19 Jun 2015	✓
Implementation Phase ended (3 projects accomplished: Bangladesh, India, Mali)	Oct 2015 – Sep 2017 (extended to Mar 2018)	✓

IOREC IV (Singapore, 31 Oct – 1 Nov 2018)



The International Off-Grid Renewable Energy Conference ([IOREC](http://iorec.irena.org/)) is the global platform dedicated to sharing experience, sharing best practices, identifying synergies and forging partnerships in off-grid renewable energy.



<http://iorec.irena.org/>

Building on the success of the earlier editions, the 4th IOREC is expected to once again attract experts from around the world and across the off-grid renewable energy value chain.

To get involved, please contact: [Ling Ng](#)

Conference organiser



Exhibition organiser

