



# Empowering people through access to electricity



Building last mile distribution and service networks for Solar Home Systems and energy efficient appliances in Sub-Saharan Africa

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# The Challenge

The lack of modern energy services severely limits educational and economic opportunities and has a negative impact on day-to-day quality of life and health!

## Energy Poverty

- More than 600 million people in Sub-Saharan Africa live without access to electricity

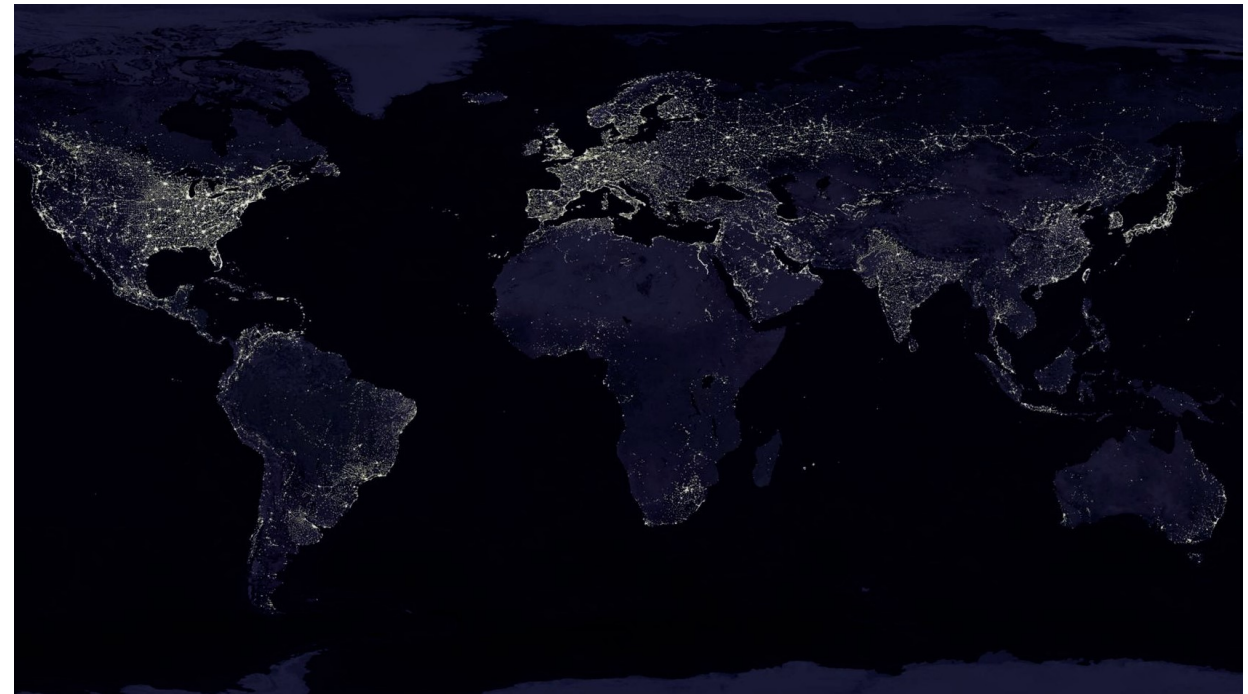
Lack of awareness & education

Accessibility to quality products & service

## Affordability

- Every year these 600 million people spend more than 10 billion USD on fossil fuels for lighting !

No protection of investment



Population growth outstrips all combined electrification efforts!

# The Solution

Decentralized off-grid solar energy systems use the abundance of sun in Africa to provide clean, reliable energy directly to the end-consumer. Thereby the consumptive energy spending on fossil fuels can be converted into an investment.

## Off-grid Solar

- Off-grid Solar Home Systems utilize the abundance of sun
- Decentralized systems allow for access to electricity independent from government's electrification plans

## Community group trainings

- People are trained in mindset change, financial literacy and benefits of solar energy and its contribution to development

## Bridging the last-mile

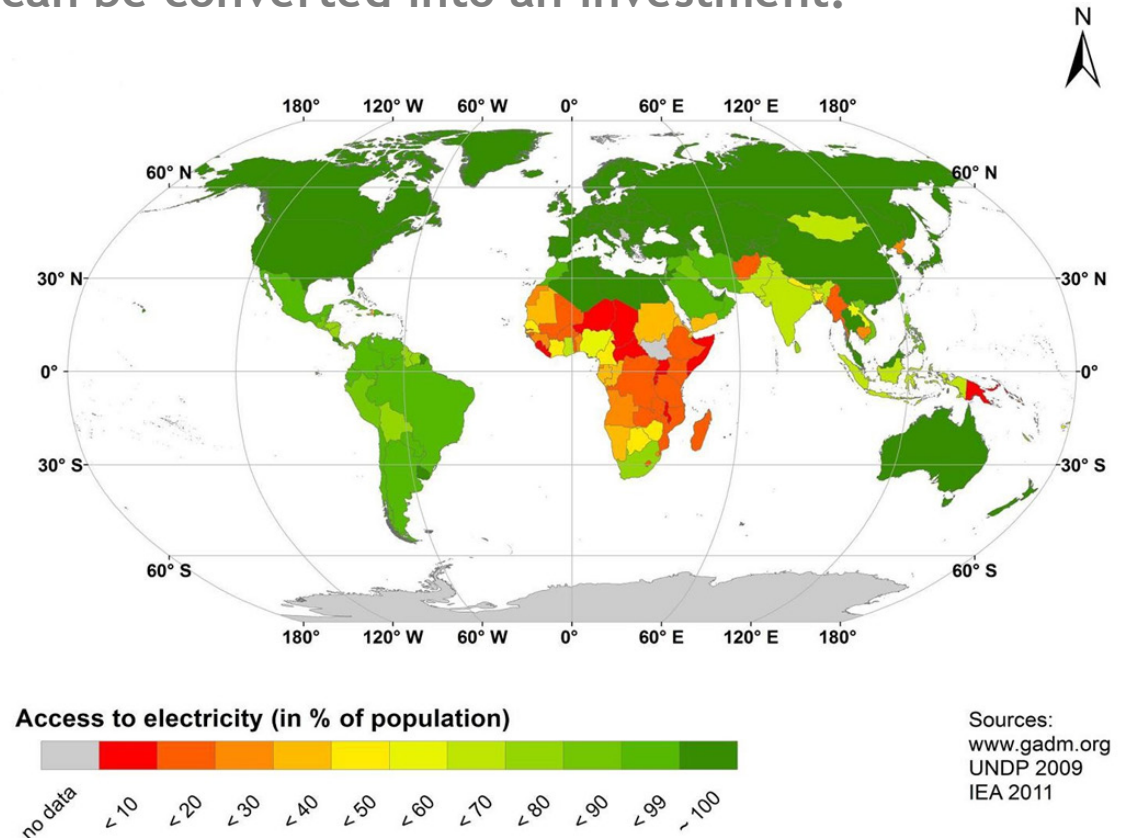
- Decentralized hubs for sales, installations and maintenance

## Flexible payment options

- Using the previous consumptive energy spending to pay off investment in solar home systems in instalments

## On site installation & warranty

- customer's investment is properly installed & maintained
- Building customer trust enables future up- and cross-selling



Most of the 600 million people live in equatorial latitudes with a lot of sunshine!

# SDG-7

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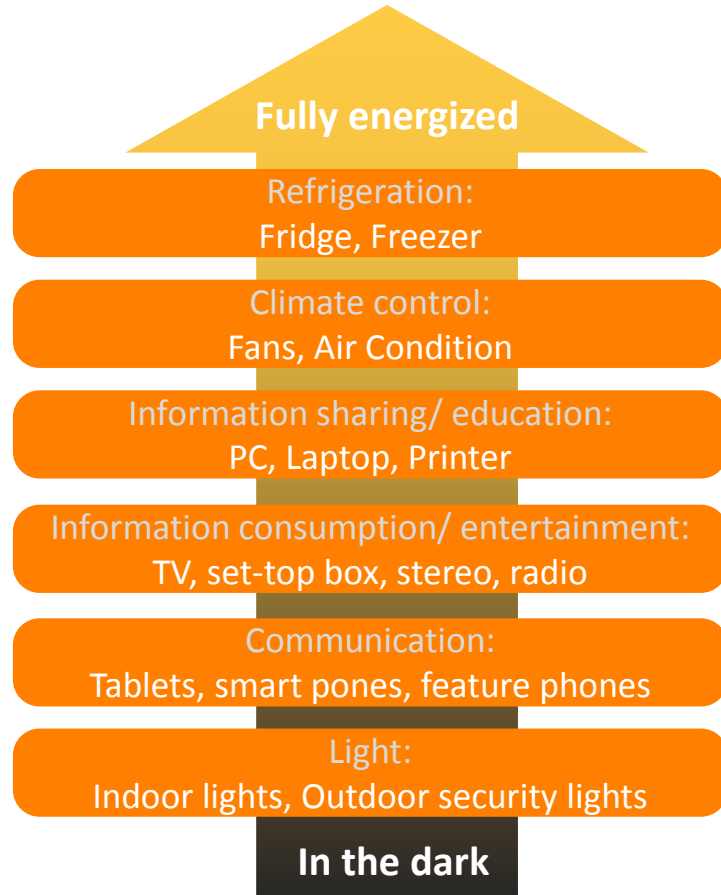
“Ensure access to affordable, reliable, sustainable and modern energy for all.”

- > it says “energy”, not “light”!  
(energy need is beyond Tier1 only)
- > support “modern” lifestyle to rural areas
- > scalable models needed to create significant impact



# The way up the energy ladder

The Village Power product range is designed to support and maintain our customers as they move up the energy ladder and to address their increasing desire for appliances.



## Village Power system

VP7+

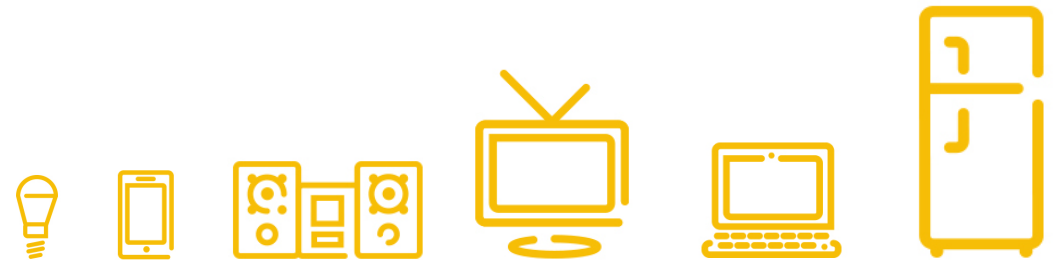
VP6+

VP4+

VP3+

VP1+

VP1+



“Clients always come back, but never for the same product. They want more!”

# Success factors

Selling larger Solar Home Systems requires deeper knowledge of sales representatives, technicians and call center agents. These products need installation and maintenance and cannot be distributed over the counter like FMCG.



## Proximity to Customers

- VP employees close to customer's homes.
- VPCs in 13 districts



## Broad Product Range

- For every need the right system.
- From 10-400 Wp



## Flexible Payment Options

- based on financial ability (Cash, PAYG/ payplan, FI solar loan)



## On-site Installation

- Free professional installation
- Training included



## On-site Warranty

- 2-year On-site warranty included (10 years on panel)



Our Products						
Product Type	Bulbs	Mobile Charging	Radio	TV	Computer	Cash Price
VP-1	1			X	X	460,000
VP-2	2			X	X	660,000
VP-3	3			X	X	950,000
VP-4	4			X	X	1,530,000
VP-5	5			X	X	2,460,000
VP-6	6			X	X	3,800,000
Solar LED TV						
		18.5 inch - 790,000			23.6inch - 990,000	





# Impact & achievements



>10'000

Installations since January 2014



>60'000

people with access to energy



13

district Village Power Centres



82.5

permanent jobs (2.5 CH/80 UG)  
100% local Ugandan staff



>70%

sales on payment plan (PAYG)



IT

Proprietary systems (ERP, BI, Apps,  
UNCDF database & tools)

“Light Lwengo District”  
project launch by Ugandan  
president H.E. Museveni



Handover of 28kWp mini-  
grid at Kasubi (UNESCO  
World Heritage site)  
to Buganda Kingdom



Visit of Graca Machel,  
widow of Nelson Mandela,  
who shares his vision of  
a brighter Africa



Strong partnerships:



# Challenges & lessons learned

## Energy access

means **more than light!**

-> larger systems require **local know-how**

## Innovations required

but: **not necessarily technological** innovations.

-> business model innovations at least equally important

## End user financing required

to **unlock market potential** (PAYG, loan products)

-> leads to **re-financing requirements** of companies

## Access to electricity

-> not possible without solving **last-mile distribution and service challenge** (long-term perspective required)

## Local focus required

-> to address true customer needs

-> to build sustainable cost structure, **not re-invent the wheel**

## Scalability required

-> effects on business structure

-> effects on cost structure

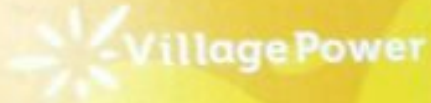


- Supported pilot of Village Power PAYG system
- Supported expansion of decentralized sales- & service points
- Supported distribution of SHS to meet increased household demand



# Outlook

This home is powered by:



**More focus on scaling business models and therefore impact!** (relevant impact needed for sector to be taken serious)

**Focus on elements making business models successful and sustainable.** (business metrics and drivers)

**Every element of global value chain to be addressed.**

**Strong local partners and support needed.**  
(Especially buy-in from local government)

**More stakeholder interaction needed.**  
(Already in design phase of programs)





# Thank You!

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