



# **We are on a mission to leave no one behind.**

**Come join us!**

**Since 2010 FRES Uganda provides affordable solar electricity services of premium quality to households, businesses, institutions and refugee settlements in 26 districts in the southwest of our country.**





## Introduction

With nearly half of our customer base made up of professional customers such as small businesses, manufacturers and schools, FRES Uganda is proud to have become a major player driving the economic development of southwest Uganda, where we are active.

The year 2020 has been a challenging year for a large part of customers that saw their revenues shrink due the restrictions to prevent the spread of COVID-19 which resulted in the inability to pay the energy bill. Although FRES Uganda is a for-profit company, we also have a social mission. I am proud that we have been able to provide many of our customers with tailored solutions help them to get through this period.

At FRES Uganda we also used this year to prepare ourselves for the post-Covid period. Together with MercyCorps we have developed a solar powered shared space concept for refugee settlements where refugees can startup new businesses. We are developing service packages with cooperative agricultural unions for their

members to provide them with reliable electricity services and reduce their environmental impact. At the same time we are scaling up digitalization in our organization to improve our customer service.

Although the grid is expanding in Uganda, the need for solar electricity solutions beyond the grid – or I might say the white spots in between the grid – will remain for the years to come. Learning from our sister companies in Mali, Burkina Faso and Guinea-Bissau we are diversifying our portfolio to be able to provide solar electricity solutions for any existing demand.

As such, we aim to play our part in achieving the SDG target to leave no one behind and provide access to renewable energy to everyone by 2030. An ambition that requires partnership. So I invite everybody to join us in this mission.

Joselyn Musiime  
General Manager FRES Uganda

# FRES Uganda at a glance

Year founded **2010**  
 Headquarters **Mbarara**  
 Shareholder **100% FRES**  
 Energy stores **5**  
 Employees **61**  
 Customers **5,975**



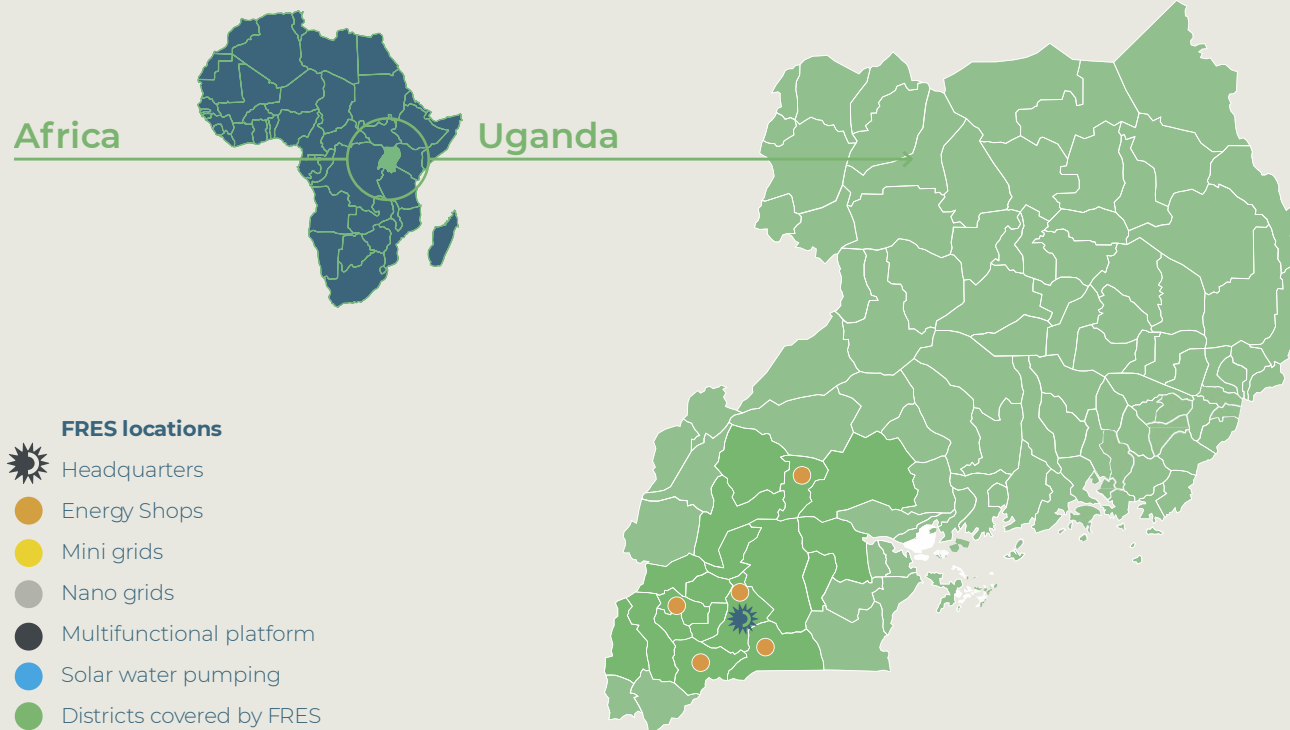
**5,975**  
 Solar home systems



**2,532**  
 (tCO<sub>2</sub>/yr)  
 CO<sub>2</sub> savings



**933**  
 Installed capacity  
 (kWp)



# About FRES

Foundation Rural Energy Services (FRES) is a Dutch not-for-profit that advances electrification in rural Africa by establishing commercial electricity companies under local management. These companies are locally run and guided by FRES on a roadmap to becoming self-reliant.

FRES is a pioneer in solar energy, with a 20-year track record of installing and servicing solar energy installations in rural Africa. From a single company South Africa in 1999 that recently became self-reliant, we have replicated and further developed our model in Mali, Burkina Faso, Uganda and Guiné-Bissau.

The FRES companies have become operators of regional networks of solar home systems, nano grids, village mini grids and lighting, solar water pumping and productive use platforms. In their regions they are not only the backbone for rural development but are also one of the bigger rural employers and main creators of indirect employment for suppliers.

## Our vision

Rural electrification that leaves no one behind. We envision universal clean energy access as an enabler for all other social and development goals and key to achieving these goals sustainably.

## Our mission

Our mission is to advance electrification in rural Africa. We do this by establishing small-scale commercial electricity companies under local management in areas that have no access to a national or regional electricity grid and that are insufficiently served by commercial solar energy providers.



The Netherlands  
Amsterdam

Mali  
Koutiala

Guinea-Bissau  
Gabú

Burkina Faso  
Orodara

Uganda  
Mbarara

# FRES in numbers

Company	FRES Mali	FRES Burkina Faso	FRES Uganda	FRES Guinea-Bissau	FRES total
Founded	2001	2008	2010	2011	
Number of clients	7,184	2,842	5,975	4,372	20,373
Solar energy capacity (kWp)	1,149	242	933	496	2,820
CO2 savings (tCO2/yr)	2,532	1,174	3,020	1,796	8,522
Energy stores	17	14	5	13	49
Rural villages served	158	280	320	693	1,451
<b>Installation types</b>					
SHS	3,950	2,842	5,975	3,975	16,742
Mini grids	14	0	0	1	15
Village lighting	14	0	0	1	15
Solar water pumping	1	0	0	0	1
<b>Client segments</b>					
Households	6,594	6,594	2,777	3,251	19,216
Businesses	590	590	65	2,724	3,969
Schools	15	21	266	12	314
Clinics	32	85	19	9	145
Places of worship	31	35	96	24	186
Government	182	6	0	32	220
<b>Staff</b>					
Direct employment	63	23	61	47	194
Indirect employment	69	58	203	110	440
Percentage women	6%	18%	22%	34%	20%
Women in management	9%	21%	36%	6%	16%
Staff below 35 years old	49%	82%	83%	55%	66%

# Energy-as-a-service

FRES sees energy as a service. Our companies provide electricity on the basis of a fee-for-service model. In short, our service offers quick installation and no worries about maintenance for a fee that is generally cheaper than the cost of candles, batteries, paraffin or kerosine. Plus: no emissions, harmful substances or the risk of fires. Customers pay a monthly fee using mobile payment and can upgrade systems when needed.

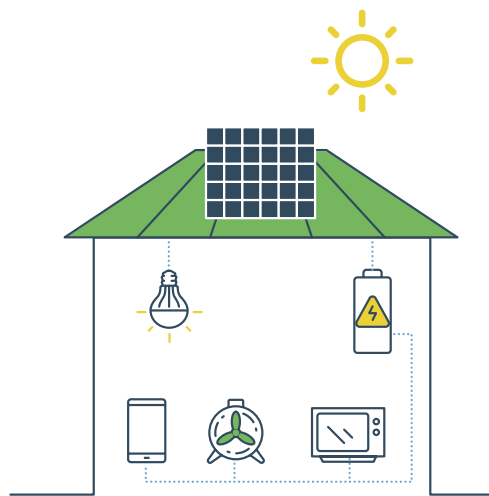
FRES companies install and retain ownership of these systems, taking care of all after-sales maintenance and replacement investments. This ensures long-term, sustained use of the assets. FRES is also responsible for collecting and recycling old systems, reducing waste and promoting circularity.

This model makes premium technology affordable to our customers and beneficiaries. To ensure our service levels remain high, we are currently upgrading the solar systems of our current customer base and converting to next-generation batteries with faster charging speeds and greater durability.



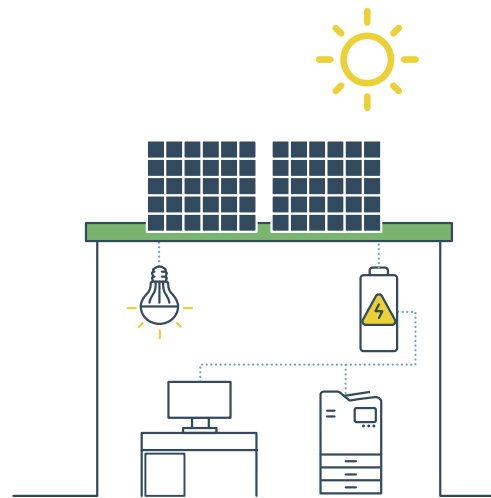
# Our solar energy services

FRES offers a wide range of solar solutions, from individual solar home systems to village power systems, which can meet all the energy needs of individual households, communities and businesses in off-grid rural areas.



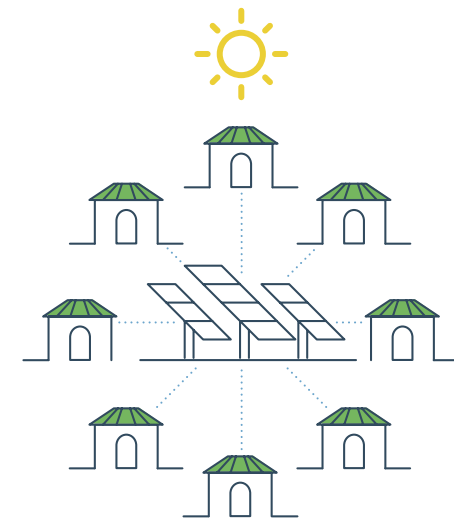
## Solar home systems

Solar home systems (SHS) are ideal for individual households and small businesses. Customers can choose between four service levels. The entry-level models deliver sufficient electricity to power several lamps and a radio, small fan, phone charger or television. The highest level is good for refrigeration.



## Solar businesses solutions

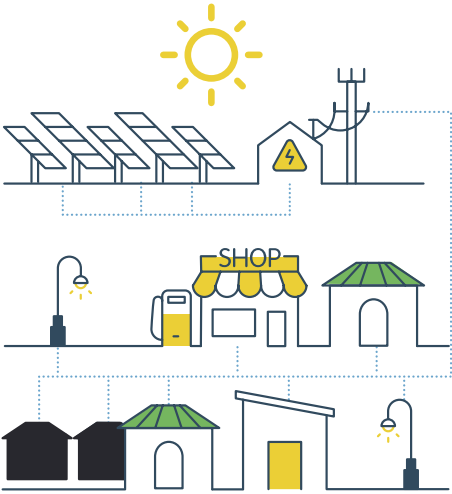
For entrepreneurs that require capacity beyond our SHS series, we can tailor our systems around the needs of small and medium sized businesses, professional services or rural institutions like schools or clinics. The design is based on required day and night time use, connected appliances and budget.



## Nano grids

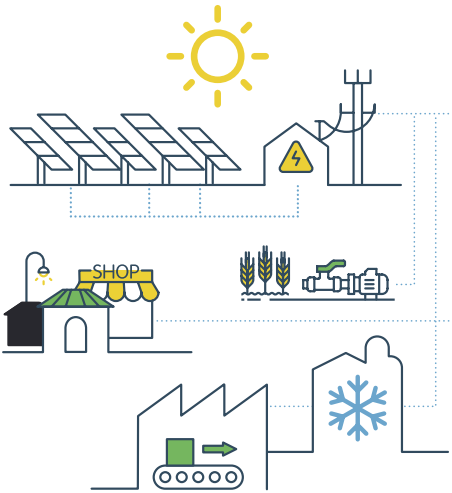
A nano grid is a shared neighbourhood network supplying 230 volts of electricity. A nano grid is installed at one central user and can supply solar electricity to up to ten connections, including productive use. Nano grids include individual meters for each customer with a PAYG mobile payment system.

*“We provide **solutions for every customer** – from individual domestic installations to solutions for business and communities”*



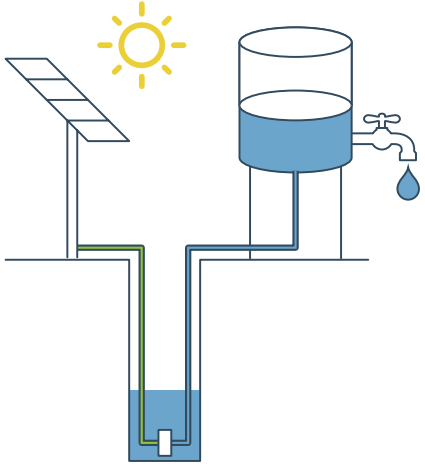
**Mini grids and solar street lighting**

A mini grid is a practical and cost-effective electricity solution for communities. It is a small electricity network that can connect between 350 and 500 consumers such as households, businesses, and institutions as well as supply street lighting within a radius of a few kilometres from the solar power plant.



**Multifunctional platform**

FRES can build multifunctional platforms that provide a tailored energy supply for a group of businesses or productive use. It can be combined with appliances such as solar powered water pumps, irrigation, processing equipment and cold storage. It is ideal for agro-processing by rural cooperatives.



**Solar water pumping**

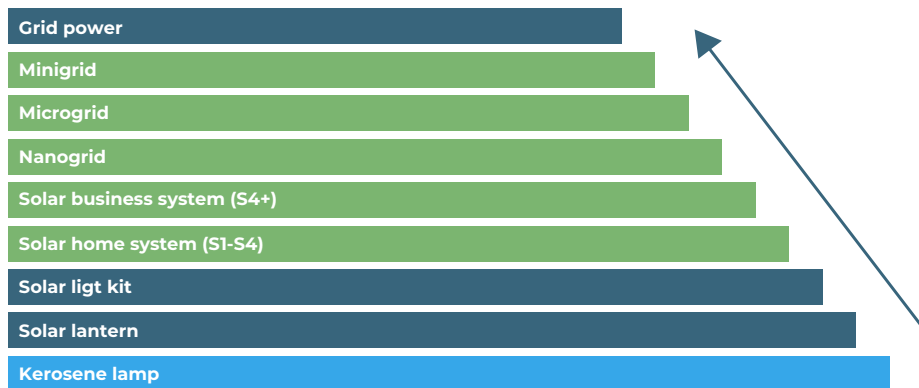
A solar water pumping system is powered by solar panels and can be used for commercial purposes such as irrigation of agricultural land. By using energy from the sun, the system eliminates manual labor and the need to burn fossil fuels. It is ideal for large water users such as farming cooperatives.



# Climbing the energy ladder

FRES focuses on providing premium quality electricity services to households, business and institutions beyond the reach of the national grid. FRES provides services for households that are ‘climbing the energy ladder’ and require more and more reliable energy supply than provided by regular solar kits that are for sale on the local market. Even the smallest SHS system (S1) is suitable for a small television, our largest SHS system (S4) is suitable for refrigeration.

Beyond the four pre-set levels, our technical teams can build solar business solutions and neighbourhood networks (nanogrids) that are fully designed around a specific need. For business hubs or villages, FRES can design, build and operate microgrids or minigrids. A huge advantage of energy-as-a-service over fixed solar kits, is that customers can upgrade their systems when their energy demand changes over time.



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