

2017 ANNUAL REPORT

FRES Foundation Rural Energy Services

Monday Tuesday Wednesday Thursday Friday Saturday Sunday Addition (+) Take away Subtraction (-) Multiplication (x) Division (÷)

Today is Wednesday 13th March 2018.
My name: Mischel Prince Sias P. E.
Maths:
Measuring heights, width and breadth
Compare these objects using taller or shorter:
Pencil A is _____ than pencil B.
Pencil B is _____ than pencil A.
A tree is _____ than a car.
A car is _____ than a tree.

Tree B is taller than tree A.
Tree A is shorter than tree B.
A wood is taller than a pencil.
A pencil is shorter than a wood.
A tree is taller than a pencil.
A pencil is shorter than a wood.

A factory is taller than a tree.
A stone is shorter than a tractor.
Activity
Complete these using taller or shorter.
Sama is _____ than Davine.
Davine is _____ than Sama.
_____ is taller than _____.
_____ is shorter than _____.
A pot is _____ than a flower.
A flower is _____ than a pot.
_____ is taller than _____.
_____ is shorter than _____.

Our memory verse is
Ecclesiastes Chapter 1:11
The seas, rivers, live and
people die, but the earth
continues forever.

a SOUNDS

a	ba	ca	da	fa
ga	ha	ja	ka	la
ma	na	pa	ra	sa
ta	va	wa	ya	za

Sounds for words beginning with letter a

act	ant	art	ash	bat
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban
ban	ban	ban	ban	ban

Sentences with sound a

A fat cat ate a rat.
A small baby has an apple.
A hot dog has clean water.
I play games all day.
Warm water makes a clean bath.
Today is a dark day.
Today is Sunday.
The small child walks along the path.
A ball is round.

e sounds

e	be	de	fe	ge	he
je	ke	le	me	ne	pe
re	se	te	ve	we	ze

Sounds beginning with letter e

ear	end	elf
egg	eel	err
exit	ewe	
eat	ego	
echo		
ebb		

More readings for e

Water wets wet bed wet.
Eight best rest on red leg.
Men fed on hens eggs.
We big hens beat three men.
The webs? on a net.
The net my

Words with letter i at the middle

big	fin	MLK
bicycle	bill	d-g
find	wind	yad-o
finish	fall	
rain	five	k-ck
ship	fox	
zip	wire	
dig	fire	
rail	the	
lid	in	
fill	ban	
win	ban	

More readings for i at the middle

The sun rises from the east.
I sat on a hot today.
The black cat is hot.
The donkey has a big skull.
I will join the class with you.
Will you run for our school?
The pig is full of milk.
Don't don't you can by school for a game by school team like a man.



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Sustainable Development Goals brought closer

FRES customers save money on the use of candles, lamp oil and car batteries and the like, have a better opportunity to start a business and improve the education of their children, and gain access to global information channels such as the internet via mobile phones. This is a key driver for economic development in the areas we serve.

Our achievements over the year 2017 may look disappointing with a net loss of over 4,000 customers (we lost 8,608 and connected 4,215 new customers) – for most commercial companies this loss of customers would certainly be a disappointment – but our aim is to bring electricity to places where it is not yet available and in that we have remained successful.

Many of the customers we lost switched to expanded national grids which are able to provide services at lower costs than FRES, as they benefit from (high) contributions from national governments and thus face fewer costs in investments and operations. Low tariffs are in the direct interest of these former customers so we are not complaining. After all, losing existing FRES customers to the grid means a step toward the UN Sustainable Development Goal to ensure access to affordable, reliable, sustainable and modern energy for all.

Moreover, by using solar powered electricity, our new customers contribute to the Climate Goals set by the Paris Agreement.

NuRa South Africa is battling the downward trend in payment rates which threatens the financial sustainability of the company. Focus has shifted from installing connections to expanding the customer base to disconnecting non-paying customers, improving services and limiting new installations to reliable customers who will actually pay. Transition is key to the survival of the company.

FRES Guiné-Bissau has had to deal with political instability. Despite these challenging circumstances the company still realised a considerable net growth of its customer base of over 20% to 4,780 customers as it continues to expand. It is the only FRES company that achieved financial sustainability.

Yeelen Kura in Mali faces a challenge as - after having nationalised our only diesel powered mini-grid - the local authorities now want to take over our solar powered mini-grids as well.

Recovery from the fraud situation in FRES Uganda in 2016 still took considerable time and effort in 2017. A new auditor was appointed and the financials over 2016 were reconstructed. The partly new Management Team improved internal operations.

Yeelen Ba in Burkina Faso increased payment rates, but did not manage to improve its financial sustainability due to a lack of funds for expanding its customer base.

Overall, FRES realised a modest positive financial result for 2017, with a slight increase in both short and long-term financial sustainability for our companies. Together, these FREScos service 31,263 customers and thereby positively impact the lives of over 700,000 people in Africa.

The dedication of our staff throughout all of our companies, close cooperation with our donors and partners, and enthusiastic pro bono professional support from many experts enabled us to keep providing our customers with the means to improve their wellbeing and economic development in their respective areas.

The Board

Annemarie Goedmakers

Joop Lasseur

Paul Gaalman

Household and hair salon in Rubeho (Uganda)

2017 in review

5
companies

5
countries

31,263
customers

29,333
households

4,205
businesses

294
schools

Yeelen Kura
7,480 customers
56 Staff (direct) 27 Staff (indirect)
€ 12,123,000
553 kWp

FRES Uganda
5,238 customers
64 Staff (direct) 111 Staff (indirect)
€ 4,298,000
772 kWp

229
staff (direct)



345,944
People benefitting based on household customers



1,586,400
Customers of these businesses



60,120
Children attending these schools

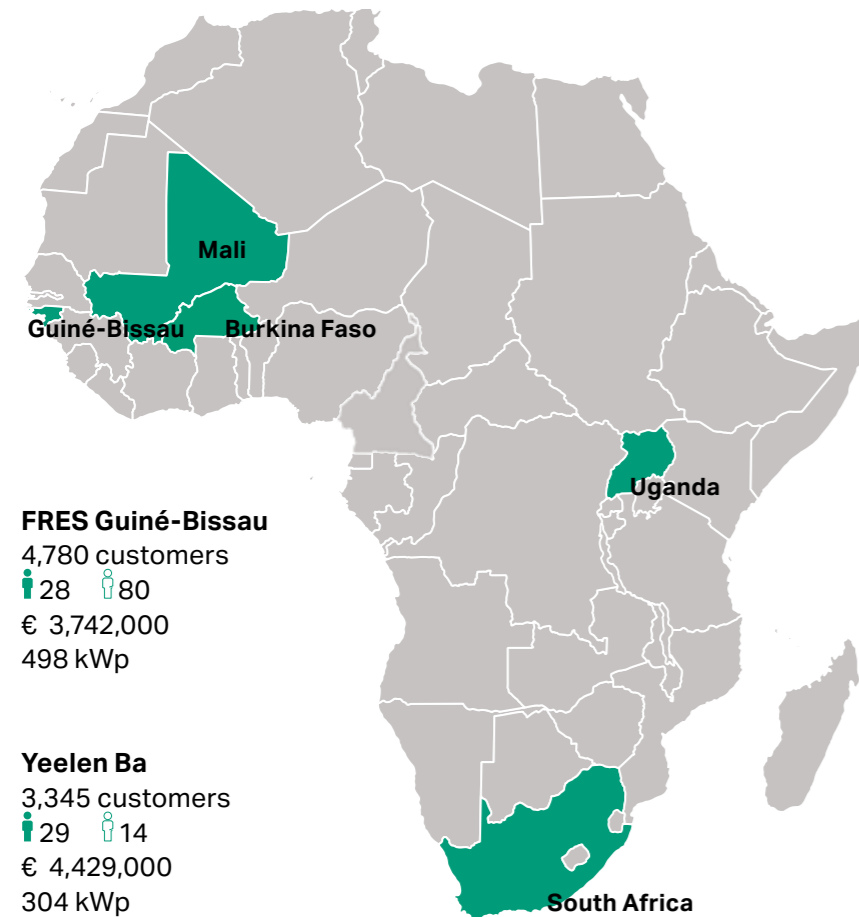
261
staff (indirect)

45,652,000
investments in Euros

149
health clinics

233
government buildings

215
religious buildings



FRES Guiné-Bissau
4,780 customers
28 Staff (direct) 80 Staff (indirect)
€ 3,742,000
498 kWp

3,570
installed solar capacity (kWp)



108,484
Patients of these health clinics



3,620
Officials working in these buildings



23,820
People visiting these buildings

Yeelen Ba
3,345 customers
29 Staff (direct) 14 Staff (indirect)
€ 4,429,000
304 kWp

47
energy stores

1,234
villages in which the companies operate

10
villages with public lighting



31
service agents

Staff (direct)
Staff (indirect)

NuRa
10,420 customers
52 Staff (direct) 29 Staff (indirect)
€ 21,059,000-
714 kWp

Report from the Supervisory Board

It is the task of the Supervisory Board to approve policies, adopt annual accounts, appoint FRES Board Members and evaluate their performance, and monitor the general state of affairs within the organisation. Its members provide the expertise and experience required for the Supervisory Board to properly perform its duties.

At the start of 2017, the Supervisory Board consisted of Peter Smink (Chairman) and Wim Sinke. There was one vacancy. In January 2017 Paul Hol was appointed as the third member.

The Supervisory Board is pleased with the way FRES is improving customer care and business processes to reach higher payment rates and therefore financial sustainability. The improved control mechanisms FRES introduced this year are essential to achieve positive results and ensure that FRES contributes to a world where more households and businesses have access to electricity. The Supervisory Board welcomes the efforts of FRES companies to strive for operational excellence.


In 2017, the Supervisory Board held only one meeting due to a delay in delivering the annual report 2016. This delay was caused by difficulties at FRES Uganda in linking the financial years 2015 and 2016 and a fraud issue in this company.

Regular communication took place between the Board and the Supervisory Board regarding the fraud case and how it was handled.

On 15 November 2017, the Supervisory Board adopted the 2016 annual accounts and granted its approval to the 2016 annual report. The auditors then issued their independent auditor's report, and the Supervisory Board granted the Board of FRES discharge over 2016. During this same meeting, the Supervisory Board discussed the business plan for 2018-2022, and granted its approval to the annual plan and budget for 2018. An important topic of discussion was how FRES dealt with the fraud case at FRES Uganda. Another subject involved the ongoing efforts related to achieving the financial sustainability of FRES so as to guarantee continuity.

The Supervisory Board thanks all employees, volunteers and the FRES Board for their high level of commitment and indispensable contribution to a successful 2017.

The Supervisory Board,
Peter Smink
Wim Sinke
Paul Hol



FRES: providing people and businesses with electricity

Household between Ubumbo and Saint Alexis, KwaZulu-Natal (South Africa)



St Jude Maternity Clinic in Rubindi (Uganda)

FRES

Foundation Rural Energy Services (FRES) advances electrification in rural areas in Africa by establishing small-scale, commercially operating utilities. They provide households and small businesses with electricity, preferably generated by solar energy, to meet the demand for proper lighting, radio and TV, charging mobile phones, and a broad range of commercial activities. This way they contribute to the economic development and social cohesion of rural areas.

FRES is a small non-profit multinational, founded in 2004, and consists of companies in Mali, South Africa, Burkina Faso, Uganda and Guinea-Bissau and a head office in Amsterdam, the Netherlands. By the end of 2017, FRES had 31,263 customers, which means that over 345,000 people in households were provided with electricity in a sustainable way. In total, more than 704,000 people, including approximately 4,205 owners of income-generating businesses, benefitted from our services in some way. FRES is active in 1,234 villages of which ten have public lighting thanks to FRES. Our customers pay a fixed amount per month for the level of service they choose themselves.

After significant customer growth in recent years, focus moved from improvement of current operations towards operational excellence as a condition for financially sustainable local companies. An adaptation of the governance structure of FRES companies laid the foundation for improved performance in four key objectives: payment rate, cost performance, customer growth, and financial sustainability.

Strategy Review

Since 2014, the FRES Board has been reviewing the progress towards objectives using performance records and the result of Operations Reviews (OR) in the FRES companies (FREScos). Since 2015 FRES NL has also been subject to an OR process. In 2017, changes in the business environment and stakeholder positions were evaluated and reviewed, and key strategies were updated where necessary. The situation of NuRa required more than an OR. With close scrutiny from the board, NuRa underwent a complete restructuring of the organisation and reduced its customer base by excluding non paying customers.

Governance Review

In 2016, FRES updated its governance guide, which lays down the principles of governance to be applied within FRES. In addition, it provides a common understanding of how FRES is organised and how it conducts its business. The guide forms the basis for governance elements in the articles of association of each of the FREScos in 2017.



Household in Emthekwni, Hlabisa , KwaZulu-Natal (South Africa)

FRES companies

	Yeelen Kura	NuRa	Yeelen Ba	FRES Uganda	FRES Guiné-Bissau
Founded	2001	2001	2008	2010	2011
Customers in 2017	7,480	10,420	3,345	5,238	4,780
Province	Sikasso and Ségou	Kwazulu-Natal	Kéné Dougou	Mbarara, Bushenyi, Isingiro, Sembabule, Kyenjojo	Gabú, Contuboel
Country	Mali	South Africa	Burkina Faso	Uganda	Guinea-Bissau

Vision

In 2000, the member states of the United Nations agreed to make major progress in the field of poverty, education, gender equality, health and environmental sustainability with the Millennium Goals set for 2015. In 2015, the UN re-defined the global agenda with the launch of the Sustainable Development Goals. Access to affordable and clean electricity, since long recognised as an essential tool to reduce poverty, was officially recognised as a global goal for 2030. In 2013, 1.2 billion people, 20% of the world population, had no access to electricity. For this reason, the UN declared 2014-2024 the decade of ‘Sustainable energy for all’, aiming to mobilise stakeholders with three objectives: to provide universal access, to double the rate of global energy efficiency improvement, and to double the share of renewable energy in the global energy mix. At the start of 2017, 194 states had signed and ratified the Paris Agreement (an agreement within the United Nations Framework Convention on Climate Change),

We help achieve these international goals by providing people in rural Africa with affordable electricity in a sustainable way, preferably generated with solar energy. Through the provision of electricity, FRES contributes to fighting poverty by increasing employment and improving living conditions. FRES companies also create direct and indirect employment. Access to electricity means the opportunity to expand or start-up companies. Health centres can refrigerate vaccines, and women can give birth under improved conditions. Schools and their pupils have access to proper lighting. The use of solar energy to produce electricity means less indoor air pollution, reduced fire hazard, and less damage to the environment.

Mission

FRES stimulates rural electrification in developing countries by establishing small-scale, commercial electricity companies in areas that have no access to a national or regional electricity grid. FRES does so via a market-based approach, which guarantees that electricity is made structurally available in the long term. FRES is a small multinational with full subsidiaries in developing countries that actively expand rural electrification.

Objectives

FRES companies should become financially self-reliant after having reached a certain customer base in order to provide a long-term electricity solution to their customers.

Strategy

1. The sun as energy source

FRES views electricity generation via solar energy as the best way to provide rural areas in Africa with an affordable and sustainable electricity solution. We do so with individual solar power systems (Solar Home Systems) and village power systems (solar mini-grids).

a. Solar Home System (SHS)

FRES companies work with Solar Home Systems because it is the cheapest option for providing electricity in rural areas with sparsely populated communities. A standard SHS (see figure) delivers sufficient electricity to power several lamps and/or power sockets for a radio, small ventilator, mobile phone charger or television.

b. Solar mini-grid

In Mali and Guinea-Bissau, FRES has built solar power plants that provide power to the people via a mini-grid. In some cases, the solar power plants replace (polluting and expensive) diesel generators. A mini-grid is a small electricity network,

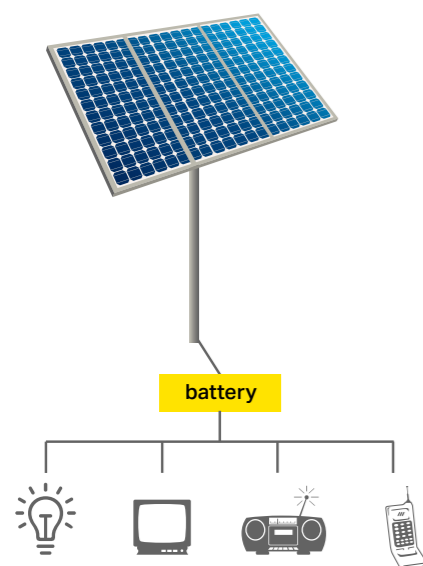
which can connect customers within a radius of a few kilometres. If customers have higher energy demands, for instance for business usage, a solar mini-grid can provide a suitable solution.

Electricity use per customer

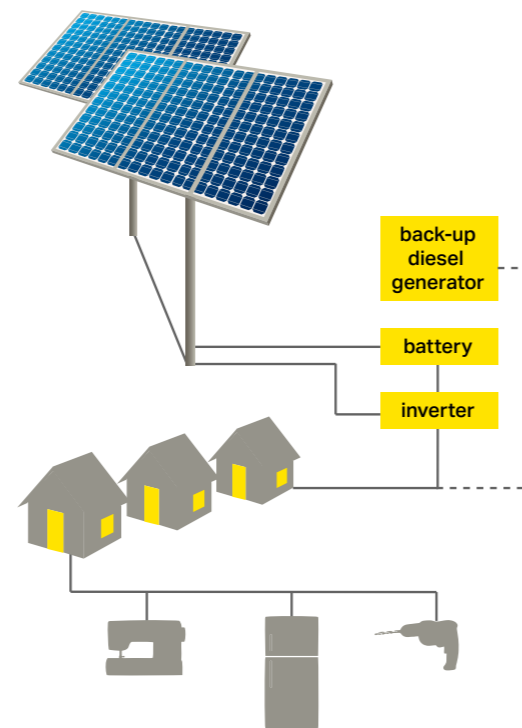
The capacity of SHS installations demanded by customers has increased by more than 50% since 2009. Households and small businesses can now use a greater number and range of electrical appliances. An average of five times more Wp was installed for customers connected to a mini-grid than for SHS customers.

This means that our SHS customers fall into the higher end of tier 2 and some in tier 3 (the measure with which ESMAP, IBRD/WB values access to household electricity supplies), whilst our mini-grid customers fall into tier 3 (which stands for access to the productive use of electricity).

SOLAR HOME SYSTEM (SHS)



SOLAR MINI-GRID



2. Fee-for-service

FRES uses the fee-for-service concept, a standardised commercial business model that can easily be fine-tuned, replicated and rolled-out. Customers pay a monthly fee for access to lighting and electricity. FRES companies install and maintain ownership of the installed SHS, and take care of maintenance and replacement investments, thereby ensuring a sustainable long-term electricity solution for the customer.

SHS customers can choose between service levels depending on the number of lamps and power sockets they require, and the affordability of the associated monthly fee. Customers of mini-grids pay a standard fixed fee for the connection as well as an amount per kWh consumed power.

The costs of the provided services for customers are on par with or lower than the traditional alternatives (kerosene, candles or car batteries). Energy shops are set up for customer service needs and payments.

Benefits of the fee-for-service concept are:

- Affordable: no initial capital investment and a cost-effective payment structure for the customer;
- After-sales maintenance and replacement guarantee for at least 20 years, ensuring the customer has no (unexpected) expenses for repairs and/or replacements;
- Ease of use: customers do not have to install the system themselves;
- Easier access to hard to find, expensive new technologies such as efficient lamps.

3. Sustainable local FRES companies

FRES believes it is important to achieve its objectives via local entrepreneurship in developing countries, with support from FRES Netherlands. A procedure has been developed for starting up new companies (see appendix 3). Local FRES companies are responsible for the growth of the customer base and efficient, sustainable operations. Planning, progress and

Different service levels

Level	SHS	Battery capacity	Sockets	LED lamps
S1	80 Wp	90 Ah	1 x 25 W	2 x 5 W
S2	80 Wp	90 Ah	1 x 25 W	3 x 5 W
S3	160 Wp	150 Ah	1 x 60 W	5 x 5 W
S4	240 Wp	300 Ah	2 x 60 W	6 x 5 W

results are supported and monitored by a central management and supervisory structure.

An important principle is that the companies operate in a financially sustainable way without the support of donor financing once they have reached a certain size. The investments for customer growth are born by external funds (FRES capital or subsidies), while income from the sale of electricity should subsequently cover the operational expenses, including maintenance, and current as well as future replacement costs. FRES monitors the financial performance of its companies regularly and initiates corrective action where needed.

In order to ensure that the rates can be set as low as possible, operational excellence is a priority to FRES and its local companies; for instance, by increasing market penetration and optimising logistics and costs, and via preventive maintenance and customer retention. Every year, we evaluate our performances in these areas to learn from experiences and adjust our multi-year business plans where necessary.

4. Corporate Social Responsibility

People

Sustainability is in our DNA. The entire FRES organisation aims to provide the African people living in rural areas with electricity as sustainably as possible. Through local companies with local management and employees, FRES also acts as a key employer in rural regions. Good employment practices are therefore extremely important. We employ a percentage of women that is relatively high for the utilities sector. The percentage of women in the staff of our companies is 20%, with 25% at management level.

Planet

Apart from attention to environmental aspects within our own operations, we ask suppliers to respect high environmental standards. We require suppliers to process their packaging and transport in accordance with ISO certification 14001 or EMAS, and request packaging with recyclable products and in accordance with strict environmental standards, optimised by size and weight.

We hope to extend the lifecycle of batteries, among others by restoring battery capacity, thus diminishing the cost of batteries whilst reducing their environmental impact. A so-called ‘battery tester’ was used in 2017 in three mini-grids by Yeelen Kura to assess the real ‘age’ of the batteries used.

It is noteworthy to mention that FRES’ activities contribute to global efforts against reverse impacts of climate change as well. Our solar systems replace carbon intensive fuel sources such as kerosene and diesel – the main fuel types used for light and power demand in the absence of clean energy sources in Sub-Saharan Africa. To calculate our impact, we use the international standard of baseline emission factors proposed by the United Nations Framework Convention on Climate Change.

For the year of 2017, the provision of solar energy by FRES companies’ solar home systems resulted in savings of 12,698 tons of CO₂ (compared to fossil-fuel based lighting systems and stand-alone power generators). As for the mini-grid activities in Mali and Guinea-Bissau, a total of 703 tons of CO₂ emissions was saved (compared to emissions from a carbon intensive mini-grid or a fossil fuel fired captive power plant).

Profit

The money FRES spends has to be spent wisely in the long-term interest of our customers. Our companies have to be financially sustainable to survive in the longer term without needing external funding. Expenses are kept at a minimum via lean operations. To protect the revenue stream, our companies must be competitive in the market, offering customers cheaper services than those of the (legally) available alternatives. It is part and parcel of normal operations that a new customer needs to be contracted for every customer that is

lost; the costs of which are also part of normal operations. For customer growth external funds are sought. Our companies must make a profit that allows them to save up for future replacements.

5. Procurement policy

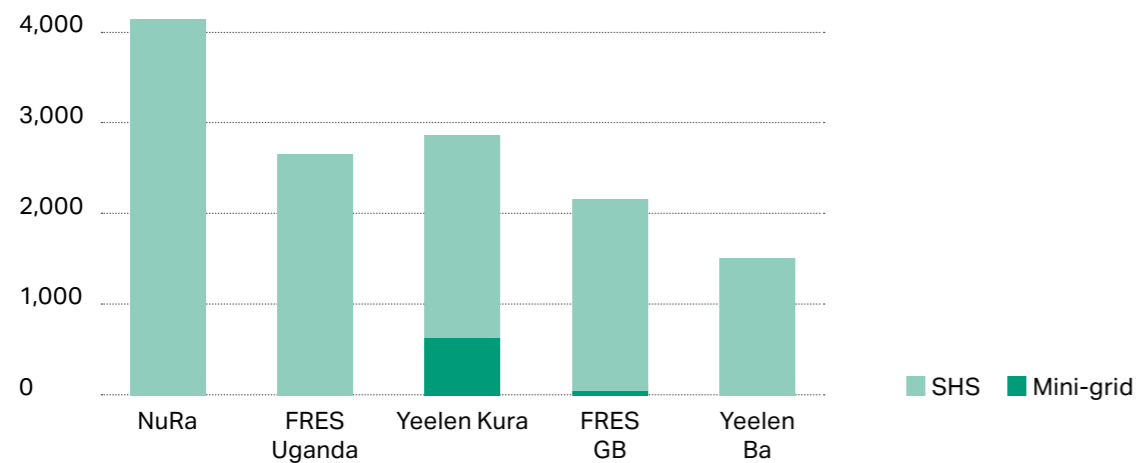
FRES Netherlands is responsible for the international procurement of solar hardware. This policy brings FRES improved purchasing power and provides local FRES companies with high quality components which are not readily available in local markets in Africa. An exception is made for South Africa. The domestic market there is sufficiently developed to enable NuRa to purchase solar systems directly from local suppliers.

In 2017, FRES focused on the correct implementation of the local procurement policy strengthened and standardised in all FRES companies since 2015 which enhanced greater transparency, financial control, and price competitiveness.

6. Risk management

In order to be able to operate effectively, efficiently and as long as possible, FRES has a keen eye for opportunities for and threats to the organisation. Based on studies that looked into specific subjects and benchmarks that compare our companies and practical experience, FRES maintains an up-to-date register of strengths and weaknesses, opportunities and threats, and a policy for managing internal and external risks. (Also see Part 3 Risk management).

CO₂ emissions saved by FRES companies in 2017 (in ton CO₂)



Household in Mgokolweni, Jozini Rural, KwaZulu-Natal (South Africa)

Outline of the organisation

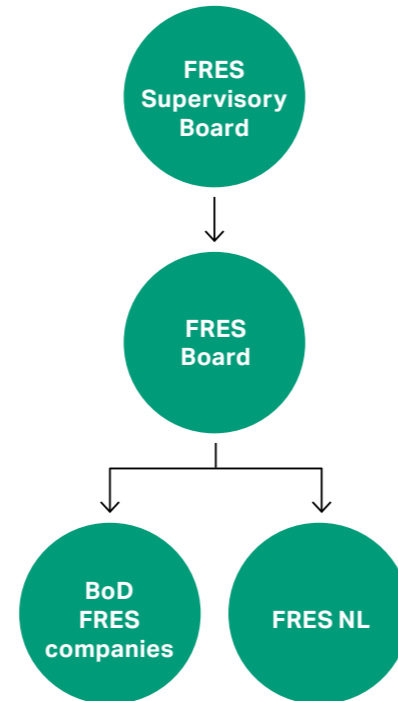
FRES consists of a small head office in the Netherlands and five active FRES companies. The head office and companies are connected via a supervisory structure, which anchors cooperation.

FRES Board

The Board of FRES in the Netherlands is responsible for the FRES Business Plan and appoints FRES Directors to the Board of Directors of FRES companies (FREScos). It consists of three positions: Chief Executive Officer (CEO/Chairperson), Chief Financial Officer (CFO/Treasurer) and Chief Operations Officer (COO/Board Member). The Board functions as a management team and divides the tasks. The Board fulfils its tasks on a voluntary basis; members are not paid for their services to FRES and may only invoice true costs of expenses necessary for the fulfilment of their tasks, within certain limits.

FRES Supervisory Board

FRES has a Supervisory Board that supervises the policy of the FRES Board and the general state of affairs within FRES. It approves the annual plan of activities, including the budget and the investment and financing plan. It also approves the annual report and endorses the annual accounts. It appoints members to the FRES Board based on nomination by the FRES Board.



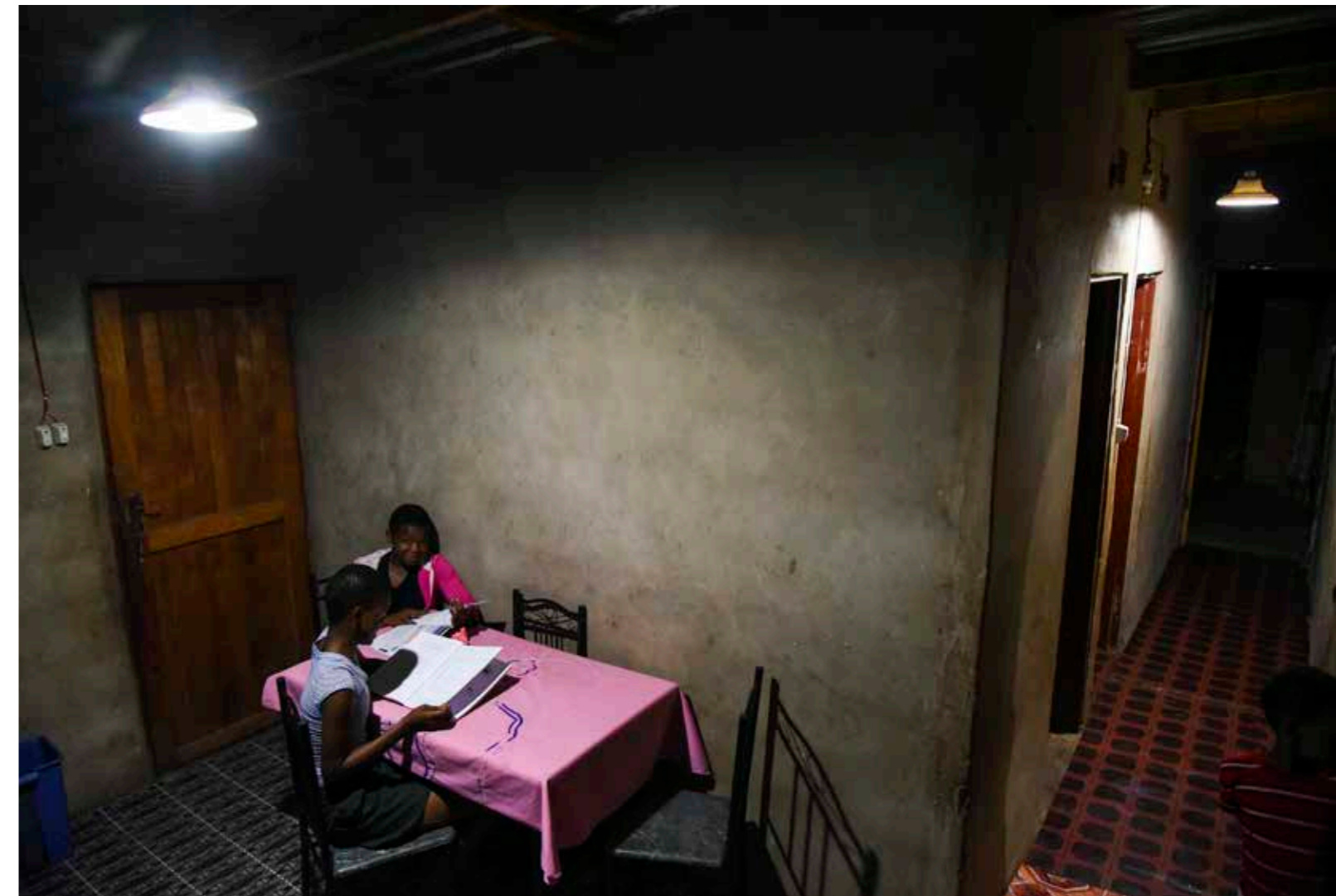
FRES Companies

Every FRES company has its own management team, and is assisted and supervised by a Board of Directors (BoD). The responsibility for managing the company and achieving the agreed upon objectives lies with the management of the FRES companies. Employees of FRES companies in Africa report to the local management; their functioning is evaluated on an annual basis.

The BoD evaluates the performance of the General Manager. General Managers are appointed by the Shareholders Assembly as Executive BoD Members.

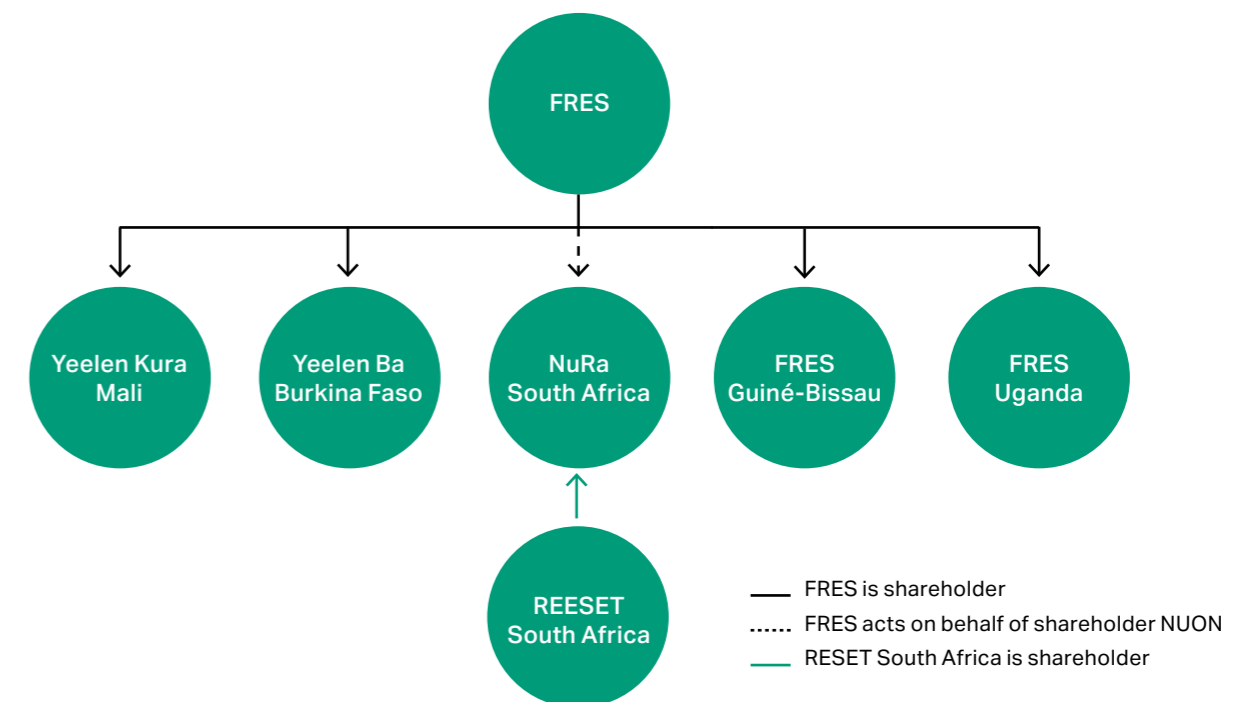
FRES Netherlands

The FRES head office in Amsterdam offers an interesting, socially relevant work environment with ample opportunities to gain experience in the business industry in an international work sphere. We work with a small team of paid (mostly young) employees, supplemented by a large number of (highly qualified) pro bono experts. The employees of FRES NL report to the General Director of FRES NL. The General Director reports to the FRES Board.



Household between Ubumbo and Saint Alexis, KwaZulu-Natal (South Africa)

Shareholders structure FRES companies



Objectives and results 2017

1. Operational performance

The performance of FRES companies will be assessed on:

- Payment rate
- Operating and replacement costs
- Customer growth including customer retention
- Financial sustainability

The objective for all companies is to achieve short-term financial sustainability in 2017, while long-term financial sustainability has to be achieved as soon as possible. The performance of all companies has to improve through measures such as increasing customer density and customer retention, improving payment rates and reducing costs. The actions in this regard include improvement of customer care systems, and the exploration and implementation of technologies for ease of customer

payment, leading to increased payment rates. Additional measures include improved methods in the selection of prospective customers with sufficient means to afford the services for duration of the contract. Internal audits are performed to strengthen the governance of our companies.

Overall operational revenues of FRES companies in 2017 covered 103% of the total operational and replacement costs, a decrease compared to 109% in 2016. This means that short-term financial sustainability was maintained. Operational revenues as a percentage of operational costs plus depreciation are our indicator for long-term financial sustainability; disappointingly this percentage also decreased from 69% in 2016 to 61% in 2017.

In 2017 a call centre system, that was already operational at NuRa, was adopted in Uganda and Guinea-Bissau. With this, a central point for customer support was established, making communication easier for customers. NuRa developed a strategy for improved response to complaints and disconnected many non paying customers

To improve the selection of prospective customers, FRES companies paid more attention to customers' purchasing power. Affordability checks have become more important before connections take place.

2. Cost efficiency at FRES NL

Cost efficiencies are expected to be achieved by updating the current ICT system.

In 2017, FRES ran a pilot with a new structured administration database that meets FRES reporting requirements. The system, which relies on data management through cloud computing, is aimed at making intercompany

administration processes more efficient and cost effective. FRES also started the implementation of an online file server for document management within the organisation to work more efficiently and share knowledge.

3. Strengthening partnerships

FRES strives to sign one new agreement for partnership and cooperation with a new donor.

A renewed agreement for partnership or cooperation was established with PUM in 2017.

FRES established initial contacts with a law firm where both organisations expressed interest in cooperating. The company would have the opportunity to increase its exposure to legal work in the solar power sector

in Africa and to have access to FRES' network in the region. For FRES this cooperation would result in access to advice in legal matters on a pro bono basis. The cooperation will be formalised in 2018.

4. SHS capital costs and technology

Two new technologies will be piloted, tested and evaluated to help realise our goal to reduce SHS operating and maintenance costs.

The introduction of mobile payment systems in Uganda has been considered. A feasibility study conducted in 2017 indicated that mobile payment is feasible in the areas where FRES Uganda is active. A pilot with 250 customers is taking place in 2018 to verify the effectiveness of the technology.

One hundred units of the third prototype of the 'COBRADOR' device were tested in Mali and Guinea Bissau. The devices should enable FRES companies to disconnect non-paying customers remotely. They also come with full data monitoring for reporting the technical performance of systems, which can potentially

reduce operating and maintenance costs. Further test will continue in 2018. A so-called 'battery tester' was used in 2017 in three mini-grids by Yeelen Kura to assess the real 'age' of the batteries used. The test proved that the batteries of the mini-grids could be viable for battery regeneration.

5. Reducing network losses in mini-grids

FRES continued its strategic cooperation with Alliander in Yeelen Kura for the mini-grid network improvement programme. In 2017 Alliander assisted FRES to verify the results of improvements

implemented in the last two years and defined the next steps. The programme has been very successful with network losses reduced from over 18% before 2013 to 9% by the end of 2017.

6. Enhanced knowledge exchange and standardisation between FRES companies.

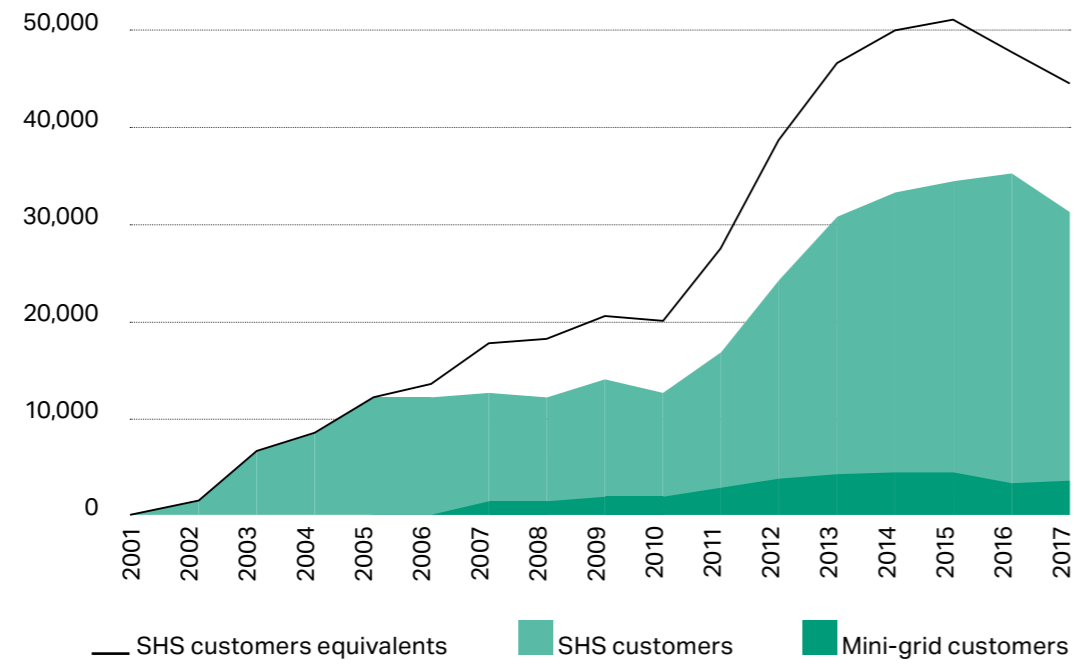
FRES will continue to facilitate inter-company knowledge exchange and establish standardised policies and procedures in all FRES companies. In 2017, our 'train the trainers' programme will focus exclusively on marketing and improving customer service.

- In terms of standardised policies and procedures, three developments took place in 2017:
- a standardised procedure for all FRES companies was setup to test new products in pilot projects.
 - an anti-fraud FRES-wide policy was developed and implemented in 2017
 - a management policy for

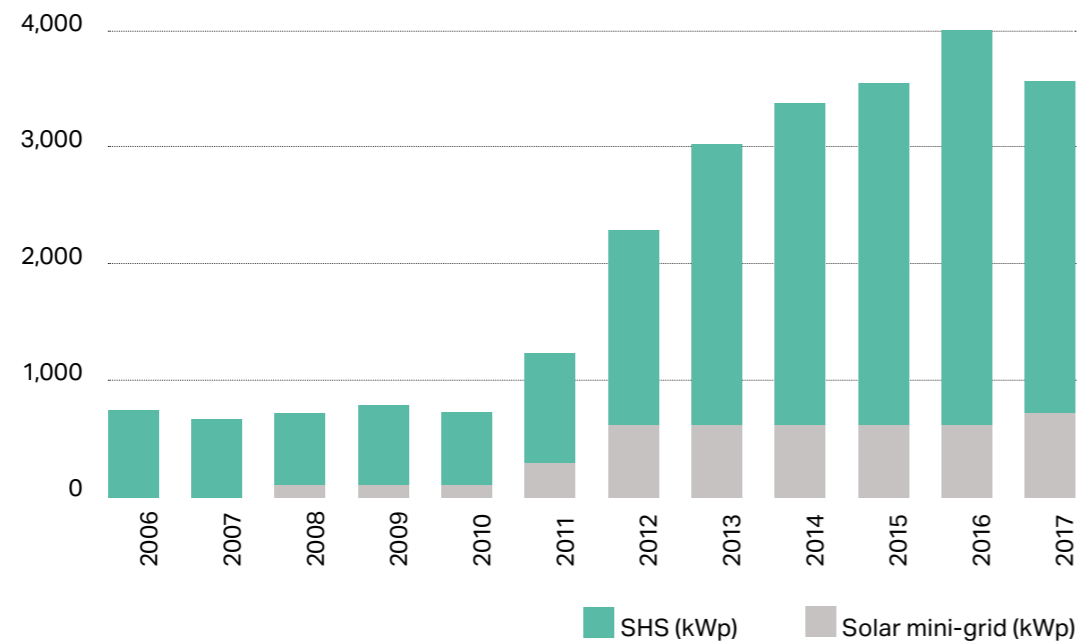
batteries for SHS at FRES companies was also developed and implemented.

During the Annual Company Week that took place in May/June in Amsterdam, Alliander provided a day-long training session on Marketing and Customer Care to all FRES Companies' General Managers.

Number of customers



Installed SHS/Solar mini-grid capacity



Customer Development

	Nura	Yeelen Kura	Yeelen Ba	FRES Uganda	Guiné- Bissau	Total
Customer base 2016	16,524	7,292	3,150	4,711	3,979	35,656
New customers	0	754	952	1,387	1,122	4,215
Cancelled customers	6,104	566	757	860	321	8,608
Net customer growth 2017	-6,104	188	195	527	801	-4,393
Customer base 2017	10,420	7,480	3,345	5,238	4,780	31,263



Household in Njinjikazi, Jozini Rural, KwaZulu-Natal (South Africa)

Other results in 2017

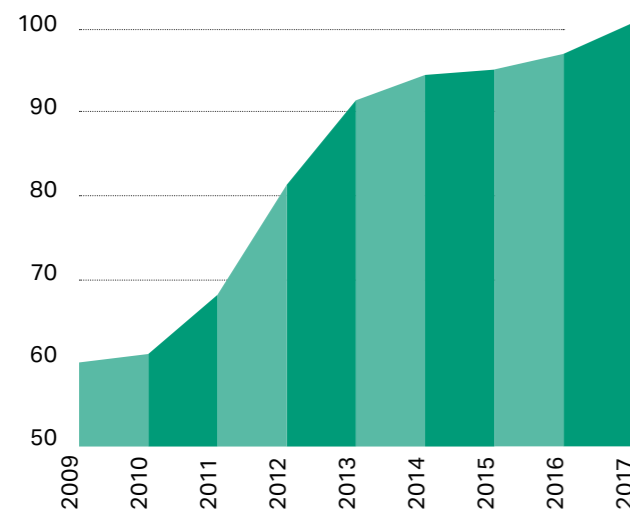
- Considering the five FRES companies, the number of customers decreased by 13% over 2017. This reduction is largely due to the cancellation of more than five thousand non-paying customers in NuRa. If the other four companies are considered together, the customer base increased by 9%, from 19,134 in 2016 to 20,857 in 2017, and all four companies registered growth.
- In the final quarter of 2017, a mini-grid became operational in Contuboeil in Guinea-Bissau, and over 250 new customers were connected to it by the end of the year.
- At the end of 2017, all FRES companies had an installed capacity of 3.86 MW for their customers. A decrease of 0.16 MW compared to 2016. This decrease is mainly due to the large number of disconnections in NuRa over the year. If the other four companies are considered together, the total installed capacity increased from 3.06 MW in 2016 to 3.38 MW in 2017.
- In the month of June, FRES received a letter from the government of Mali requesting the transfer of the villages Kolondieba, Yorosso, Kouri, Niena and Koumantou to the national electricity company EDM SA. Yeelen Kura operates solar mini-grids in these villages. This transfer put

- a halt to the solar expansion foreseen for three of those villages in 2017. Legal counsel was sought and asset valuation reports, needed for the transfer of mini-grids with solar plants and their customers, were prepared as a basis for negotiations with the government of Mali.
- After careful consideration of the conditions for operating in Cameroon, FRES decided to halt efforts to set up operations there. In 2018 FRES will start negotiations with the EU to re-allocate the approved subsidy for Cameroon under the Regional Programme to existing countries and potentially to a new one as well.
 - In our search for new countries in which to invest, market research was conducted focusing on the opportunities for FRES to operate in Sierra Leone. Following prior desk research by FRES in Amsterdam, a pro bono expert visited the country through a PUM project in the month of October, and opportunities and risks for operating in Sierra Leone were identified. The risk profile is probably too high for FRES.
 - The programmes subsidized by the EEP and OFID, implemented respectively in Uganda and Guinea-Bissau, were successfully carried out in 2017.

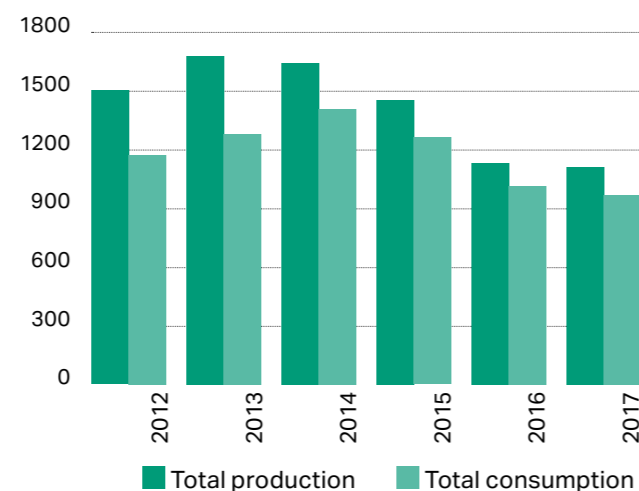


Hair salon in Rubeho (Uganda)

Solar capacity per SHS customer (in Wp)



Mini-grid generation and consumption (in MWh)



Short-term performance indicator

Company	2014	2015	2016	2017
NuRa	102%	98%	78%	67%
Yeelen Kura	122%	138%	132%	168%
Yeelen Ba	51%	113%	133%	88%
FRES Uganda	71%	92%	111%	103%
FRES Guiné-Bissau	84%	137%	176%	137%
FRES	93%	111%	109%	103%

Long-term performance indicator

Company	2014	2015	2016	2017
NuRa	87%	79%	59%	46%
Yeelen Kura	69%	69%	61%	62%
Yeelen Ba	39%	81%	65%	56%
FRES Uganda	66%	54%	80%	70%
FRES Guiné-Bissau	54%	74%	108%	98%
FRES	70%	71%	69%	61%

Impact of rural electrification

FRES contributes directly to fighting poverty, increasing employment and improving living conditions in developing countries by providing the availability of electricity to households and small businesses. Our preference for the use of solar energy to generate electricity means that people use fewer fossil fuels, which benefits the environment. Together this leads to the improvement of living standards and boosts local economies in rural areas.

Some examples of improved living conditions:

- More economic activities;
- Longer days thanks to the availability of electric light;
- More safety on the streets thanks to (public) lighting;
- Better lighting in hospitals, schools and public buildings;
- Improved access to communication tools such as radio, television and mobile phones;
- Reduced fire hazard from falling candles or oil lamps;
- Lower costs for the same amount of lumen or kWh compared to the use of candles, oil lamps or diesel generators;
- Improved income and lower costs for businesses;
- Less time spent making sure electricity or light is available;
- Higher levels of employment in businesses with electricity.

FRES has become one of the larger employers in the rural areas where it operates by creating stable, well-paid and high-value jobs. Consequently, FRES is able to bind qualified personnel to the region. By the end of 2017, FRES companies provided direct employment to 229 people and indirectly employed about the same number (261). By using locally provided goods and services where possible, a manifold of these numbers is benefitting from FRES' activities as suppliers or subcontractors.

Most FREScos receive relief from VAT and custom tax on imports of solar equipment. This enables them to set reduced rates for their customers.

All FREScos contribute to the budgets of governments by paying other taxes and duties according to local legislation. In 2017, they combinedly paid a total amount of € 86,260 on wage taxes for their 229 employees (€ 377 per employee) and € 165,645 on other taxes – or € 5,30 per customer.

Taxes paid

	Yeelen Kura	NuRa	Yeelen Ba	FRES Uganda	FRES Guiné-Bissau
Taxes on wages	€ 8.777,97 FCFA 5.758.351,00	€ 35.716,00 R 528.595,00	€ 5.255,00 FCFA 3.447.338,00	€ 12.087,25 UGX 51.733.409	€ 24.423,91 FCFA 16.022.085
Other taxes	€ 23.401,17 FCFA 15.351.166,00	€ 48.123,00 R 712.216,00	€ 13.190,00 FCFA 8.652.456,00	€ 2.680,28 UGX 11.471.618,00	€ 78.251,21 FCFA 51.332.796,00

FRES and its competitors

When FRES started its operations, few households in rural Africa had access to electricity, while small businesses depended on expensive car batteries or small diesel generators. For both type of customers, FRES has been providing a better and cheaper alternative via solar powered electricity for over 15 years.

Gradually, a market developed for solar systems as consumer goods, in both cities and rural areas. This means that people nowadays have a real choice: buy a solar system, pay the investment upfront (often via a costly loan), and take care of the maintenance themselves, or become a customer of FRES. The FRES proposition offers a service comparable to that of a utility: a reliable electricity supply with guaranteed maintenance at a relatively low monthly tariff and few upfront costs.

The next step in electricity development in the larger villages in rural areas is the arrival of the national grid at even lower monthly tariffs than FRES can offer. In Mali and South Africa we experienced significant customer losses due to the expansion of the national grids. But even with the national grid arriving, the high costs of connecting to the grid remain a hurdle. And some customers may still prefer the high reliability of our services compared to that of the grid.

For most people in rural areas, small villages and around small cities, the national grid will be too distant to offer a connection at reasonable costs for many years to come. To them, the FRES proposition remains a welcome and competitive opportunity to have access to proper lighting and reliable electricity.



FRES Guinea Bissau



FRES COMPANIES

Store in Njarama (Uganda)

Yeelen Kura

Sikasso, Mali



2001
year founded

100% FRES
shareholder

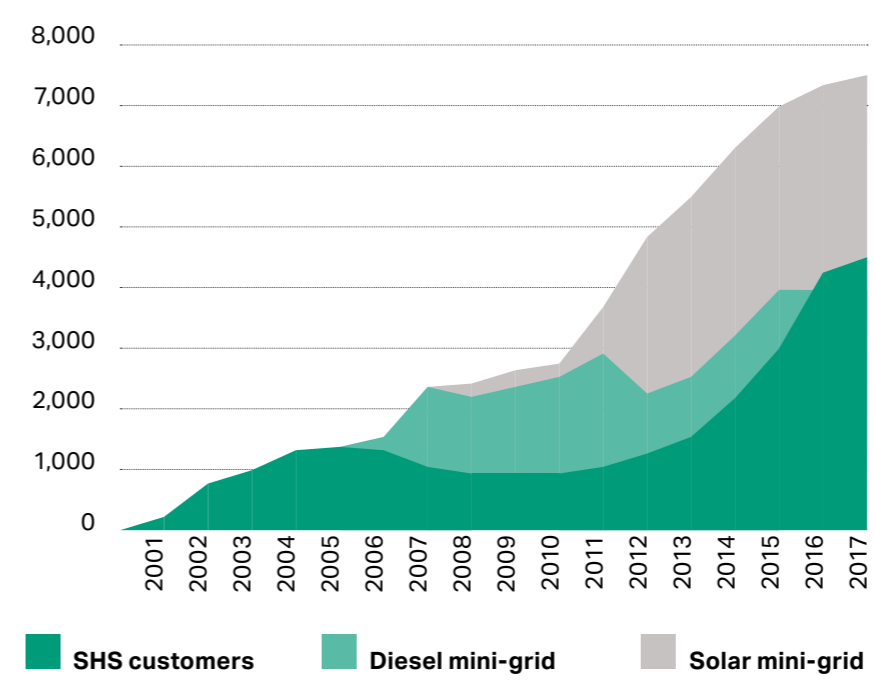
7,480
customers

56
employees

15
energy stores

**SHS & solar
mini-grids**
products & services

Number of customers



Mali has over 18.9 million inhabitants and is 175th out of 188 on the most recent UNDP Human Development Index. Although the percentage is increasing, only 18% of the rural population in Mali has access to electricity. Opportunities for substantially improving the quality of life in the country are hindered by the lack of reliable electricity services.

The country was regarded as a model for African democracy until rebellion activities in the North arose and the military seized power in March 2012. In July 2013, the UN peace-keeping mission in Mali known as MINUSMA began operating on the ground, and in August 2013, presidential elections formed the start of a return to civilian rule. Although a peace agreement was signed in 2015, the Malian government has

been unable to retake control of several areas of the country, which remain in the hands of armed fighters, including some with ties to Al-Qaeda. Security, critical to economic recovery and poverty reduction, remains fragile. The next presidential election in Mali is expected to be held in July 2018.

FRES company Yeelen Kura has been active in the southern provinces Sikasso and Ségou (bordering Burkina Faso) since 2001. The head office is located in Koutiala. Yeelen Kura ('New Light' in the local language Bambara) supplies lighting and electricity to households and small businesses via Solar Home Systems (SHS). Furthermore, in larger villages, Yeelen Kura provides customers with electricity via solar powered-mini-grids with a diesel back-up.



M'pessoba (Mali)

Results 2017

Payment rate

Yeelen Kura achieved an average payment rate of 97% throughout 2017, versus the target of 95%. Prepaid meters Yeelen Kura installed for mini-grid customers and strict debt monitoring and collection by the sales team helped achieve these levels. Customers who do not pay their service fee are disconnected after two months following contractual procedures and the material is reused for new customers.

Operational and replacement costs

Operational and replacement costs are below budget. An important factor for this is the prolonged life expectancy of the batteries leading to less battery replacements than foreseen.

Number of customers

Already in the first quarter of 2017, Yeelen Kura reached its SHS customer target, ending the year with 4,474 SHS customers. As for the mini-grid customers, the number remained stable compared to 2016, with a total of 3,006. Due to our decision to (temporarily) stop investments in mini-grids, no new mini-grid customers could be connected. This decision was based on the intention of the Malian government to nationalise five of the eight mini-grids operated by Yeelen Kura, which would result in a loss of over 2,000 customers. Yeelen Kura closed the year with 7,480 customers.

Financial sustainability

Yeelen Kura's short-term cost coverage decreased. Long-term cost coverage increased slightly from 61% in 2016 to 63% in 2017. Underpriced tariffs for mini-grid customers led to insufficient revenues. With the present tariffs, it cannot realize adequate reserves to cover future replacement costs.

Contracts and investments

Yeelen Kura plans to invest in 3,900 SHS systems and several mini-grids (insofar as there is no risk of nationalisation) in the period 2015-2018 under two EU programmes: EU Regional and EU Fragile States.

Research

With the aim of expanding its services to more customers, Yeelen Kura is exploring the possibility of using Pico Solar Home Systems (PSHS) as an addition to or as an alternative for its S1 level of SHS services in remote areas within its operating zone. In 2016, the technical features of the 'Fosera' PSHS were assessed and compared to the current S1 SHS systems. A feasibility study was conducted early 2017. The limitation of the PSHS does not lie in its technical quality but in its price, which is too high in relation to the income of the households.

One hundred units of the third prototype of the 'Cobrador' device were sent to Mali and Guinea-Bissau. These devices should enable Yeelen Kura and FRES Guinée-Bissau to disconnect (non-paying) customers remotely via the local mobile network. The devices have been elaborately tested in both countries in the second half of 2017; small technical issues are still being fixed before deciding whether or not to implement this device in FREScos in 2018. Yeelen Kura has developed a procedure for the pilot testing of new products. This procedure has been shared with other sister companies with the aim to gather testing data in a systematic way and contribute to data exchange and knowledge sharing among FREScos.

In 2016 network improvements were implemented in the Koumantou, Yorosso and Kignan grids. The overall effect of these modifications and those in Koury were verified in the first trimester of 2017. The verified effects of the grid improvement programme are shown in the table below.

Results of mini-grid performance improvement programme

Phase	Location	Network losses before (%)	Network losses after (%)
Phase 1	Bla	18%	10%
	Koury	20%	8%
	Kolondieba	28%	9%
	Koumantou	27%	6%
Phase 2	Yorosso	15%	10%
	Kimparana	11%	No change
	Kignan	13%	8%
Phase 3	Niena	8%	No change
	Mpesoba	12%	No change
	Ourikela	14%	8%
Overall loss before the programme		18%	
Loss after the programme		9%	

Products, services and rates

Rates

In 2017, SHS customers paid an amount of 3,500 FCFA (€ 5.34) to 13,475 FCFA (€ 20.54) a month for the services of Yeelen Kura depending on the chosen service level.

Customers of mini-grids are charged per kWh. In 2017, the tariff remained at 250 FCFA/kWh (€ 0.38) for the solar mini-grids. These rates are insufficient to cover lifecycle costs. Although preliminary discussions and promises were encouraging, the threat of nationalisation of five mini-grids has put the tariff negotiations with AMADER on hold.

Customer care

Customer complaints, remarks and observations are being registered by Yeelen Kura in a database to ensure an adequate follow-up by the marketing and technical departments. No special issues were encountered in 2017; all complaints were solved in a timely manner and to satisfaction.

Mini-grids

Upon the Malian government's decision in mid-June 2016, the mini-grid in Bla was effectively transferred to the national energy company EDM SA, leaving Yeelen Kura with eight solar and/or hybrid mini-grids. Mid 2017, a year after the transfer of the diesel mini-grid of Bla to the national energy company EDM, five of the eight remaining solar and/or hybrid mini-grids are at risk of being transferred to EDM SA as well.

Organisation, governance and supervision

On 31 December 2017, Yeelen Kura employed 56 people directly and none on a commission basis

Workforce profile 2017

Number of employees	56
Male / female	53/3
Permanent / temporary contracts	56/0
Fulltime / part-time	56/0
Inflow / outflow men	4/2
Inflow / outflow women	0/2
Employees aged 15-24	1
Employees aged 25-34	25
Employees aged 35-54	29
Employees aged 55 or over	1
Number of men / women in Mgt	4/0
Number of male / female store managers	13/2
Number of male / female interns	4/2

Salary and terms of employment

In addition to their salary, Yeelen Kura offers its employees pregnancy and maternity leave, pension provisions, life insurance and social security. The entry level wage of an employee in the lowest employment category is the legal minimum which was 40,000 FCFA (€ 61) at the start of 2017. All employees had at least one performance evaluation in the last year, and no grievances were recorded.

Health, Safety and Environment (HSE)

In 2017, sick leave totalled 28 days. Improved focus on HSE proved successful.

Staff development

In 2017, six sales interns took part in a training on sales techniques to promote the fee for service models. Furthermore, in July 2017, a four-day workshop was organised by the MT to train the whole staff on fee collection and how to adapt it to the nature of the customer (households, farmers, civil servants, etc.). Upon auditor's advice and based on our own experience, a global anti-fraud policy is being implemented which is due to be finalised in the first quarter of 2018.

Management and governance

The General Manager, Djibril Séméga, reports to the Board of Directors of Yeelen Kura.

On 31 December 2017 the Board consisted of Caroline Nijland (Chair) and Serge Leijten (Interim Board Member).

Challenges and objectives in 2018

Following the expropriation of the Bla mini-grid and imminent expropriation of another five mini-grids, new conditions for concession agreements need to be re-negotiated with the relevant governmental agencies in 2018, with a specific focus on protecting new investments in the future.

The political unrest in some parts of the country and the increasing threat of terrorist attacks within Yeelen Kura's operating zone have led FRES to prepare a company-wide Emergency Response Plan which was implemented by Yeelen Kura in early 2017.

NuRa

Kwazulu-Natal, South Africa



2001
year founded

80% Nuon
20% REESET
shareholders

10,420
customers

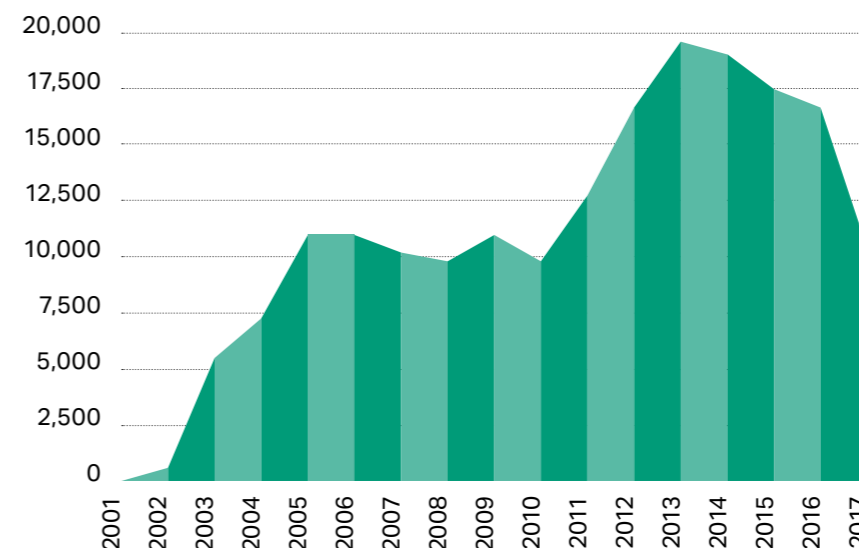
52
employees

3
energy stores

5
service agents

SHS
products & services

Number of customers



South Africa (1,219,912 km²) has nearly 56 million inhabitants, of which 45% live in poverty due to extreme differences in income and a high level of unemployment (2011, World Bank). The country is 116th out of 188 on the most recent UNDP Human Development Index. Of South-Africa's inhabitants 96% has access to electricity in cities and 82% in rural areas. The political situation in the country is generally stable, but overall the supply of basic services has been lagging behind. The non-grid electrification programme in South Africa is highly sensitive to political campaigning.

In South Africa, FRES supplies electricity to households and small businesses via the company NuRa, which operates in Kwazulu-Natal, one of the least developed provinces in the country. Approximately 29% of the population in this region has access to electricity.

In July 2017, NuRa started a restructuring process aimed at making NuRa a smaller but healthier company. The restructuring involved disconnecting customers with a long history of non-payment and closing down LPG sales, an activity which is no longer profitable. A new Managing Director was appointed to lead this process.

Results 2017

Payment rate

When the year is divided in two parts (before and after the company's restructuring started), analysis clearly shows the effect of the restructuring process on the payment rate results. The first half of 2017 presented an average payment rate of 56% (same average as in 2016). This average went up to 68% in the second half of 2017. This improvement is not only linked to the disconnection of non-paying customers but also to better customer care services.

Operational and replacement costs

Although costs due to restructuring were very high in the first half of the year, they were brought down significantly in the second half of 2017, NuRa exceeded its operational annual budget by 13%.

Number of customers

NuRa cancelled 6,104 non-paying customers in an attempt to diminish the customer base with 50% to around 8,000 paying customers by early 2018. The company's customer base per 31 December 2017 was 10,420.

Financial sustainability

NuRa's short-term cost coverage decreased from 78% in 2016 to 74% in 2017. Its long-term cost coverage decreased from 59% to 51%

Contracts and investments

In view of the precarious situation of the company it was decided not to participate in DoE tenders for new installations. The first priority for the company is to focus on providing existing, paying customers with proper and efficient services.

Products, services and rates

Rates

After two years of frozen tariffs, they increased slightly in August 2017, namely to between ZAR 119 (€8.04) and ZAR 382 (€ 25.83) incl. VAT, depending on the chosen service level.

LPG

NuRa closed down all LPG activities by May 2017 as a part of its restructuring.

Customer care

Customer satisfaction was measured through normal operational procedures, the new call centre, and the centralisation of job cards. Client satisfaction is indirectly measured by the number of job cards solved and the number of days they remain outstanding. In 2017 there were 69% fewer complaints than in 2016. The outstanding complaints dropped from 310 in 2016 to 86 in 2017, showing a significant improvement.

Organisation, governance and supervision

The turnaround management that started its work to tackle performance issues in 2016 did not have the expected results. In February 2017 a two-person Management Team was appointed to lead the company in the right direction. A reorganisation plan was approved at the end of June 2017, aimed at NuRa becoming a smaller company with fewer energy stores, while serving a healthy base of paying customers. NuRa came under close supervision of the board which lasted until the end of 2017 and included intensive monitoring and guidance.

On 31 December 2017, NuRa employed 52 people directly and 76 indirectly, on a commission basis.

Workforce profile 2017

Number of employees	52
Male / female	33/19
Permanent /temporary contracts	51/01
Fulltime / part-time	52/0
Inflow / outflow men	10/28
Inflow / outflow women	7/17
Employees aged 15-24	5
Employees aged 25-34	34
Employees aged 35-54	13
Employees aged 55 or over	0
Number of men / women in Mgt	1/1
Number of men / women in middle Mgt	0/3
Number of interns	0

Salary and terms of employment

In addition to salaries, NuRa offers its employees pension provisions and life insurance. A NuRa employee in an operational function starts with ZAR 3,559 (€ 243) a month, a sum equal to the legal minimum wage level in South Africa. Depending on the position or contract, contributions for car and/or phone are available. Employees are motivated via performance bonuses.

All employees had at least one performance evaluation in 2017 and some were evaluated quarterly or even monthly, depending on their function. Four official complaints were filed with NuRa's management about salary reviews.

Health, Safety and Environment (HSE)

The total number of lost days due to illness was 36, two more than in 2016. Zero days were lost in 2017 due to accidents, a significant improvement compared to the 120 days lost in 2016. Two work-related injuries were reported in 2017, both related to traffic accidents. In 2017 NuRa implemented a drivers' code of conduct and reports on speed control.

South Africa has a significant HIV/AIDS problem. An unknown but significant number of employees has HIV/AIDS. The NuRa HIV programme, which aims to break the taboos surrounding HIV/AIDS and increase the knowledge regarding the prevention and treatment of HIV/AIDS, was continued throughout 2017.

Staff development

Technical training courses were arranged for three employees in 2017.

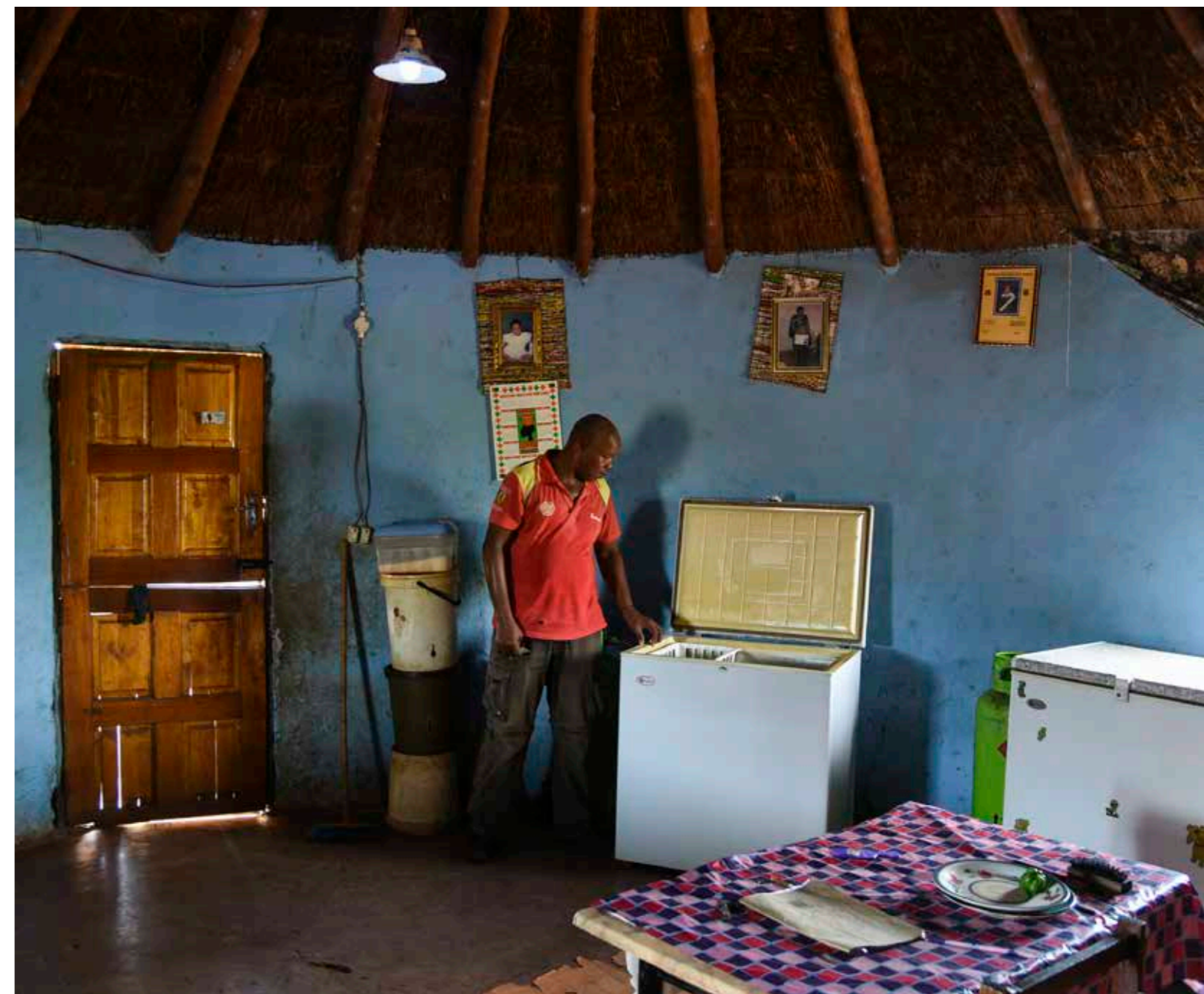
Management and governance

The interim General Manager Michelle Makoni reported to the Board of Directors of NuRa.

At the end of 2017 the Board of Directors consisted of: Caroline Nijland – Chair (on behalf of Nuon)
Joop Lasseur – Interim Member (on behalf of Nuon)
Bart Blokland – Member (on behalf of REESET)

Challenges and objectives

The company is fighting for survival in the face of grid expansion and lack of a clear government strategy for solar powered electricity in rural areas. Its focus has to shift from growth to operational excellence for paying customers. Grid expansion and illegal grid connections are an increasing challenge in the company's concession area.



Household in Emthekwini, Hlabisa, KwaZulu-Natal (South Africa)



Households in Mgokolweni, Jozini Rural, KwaZulu-Natal (South Africa)

Yeelen Ba

Kéné Dougou, Burkina Faso



2008
year founded

100% FRES
shareholder

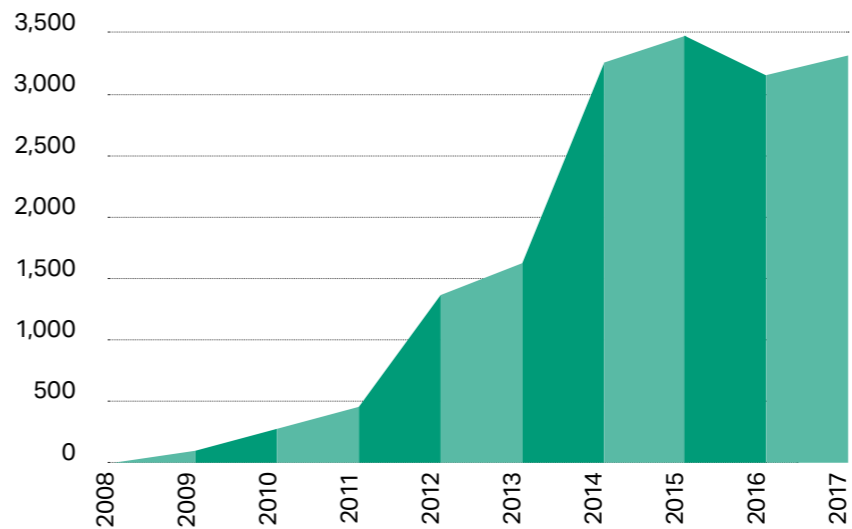
3,345
customers

29
employees

12
energy stores

SHS
products & services

Number of customers



Burkina Faso is a landlocked Sub-Saharan country with more than 20 million inhabitants. The country ranks 185rd out of 188 in the most recent UNDP Human Development Index, thus belonging to the poorest nations in the world. Merely 4% of the rural population has access to electricity. Burkina Faso has suffered from recurring droughts and military coups and, most recently, from terrorist attacks.

In Burkina Faso, FRES supplies lighting and electricity by installing SHS in households and small businesses via the local company Yeelen Ba. Yeelen Ba is active in the province of Kéné Dougou, an area with over 503,000 inhabitants. It lies just across the border from the area in Mali where Yeelen Kura is active. The living conditions in the adjoining regions are similar. The economy is heavily reliant on agriculture, mainly cotton.

Results 2017

Payment rate

Yeelen Ba reached a payment rate of 82% in 2017, a significant increase compared to the 65% achieved in 2016. Although there is still room for improvement, it is noticeable that the new team of agents recruited after the illegal strike in the first term of 2016 is putting more effort into fee collection. The fee collection targets set for each agent have led to an improved payment rate.

Operational and replacement costs

Yeelen Ba was slightly over budget in 2017. The intensive efforts performed in the field by the agents supported by the Management Team led to extra expenditures.

Number of customers

In absence of the external funding needed to expand its customer base, Yeelen Ba's objective in 2017 was to maintain a customer base of 3,500. It began the year by removing non-payers from its customer base and subsequently rebuilding its customer portfolio. By the end of 2017, the company had 3,345 customers.

Financial sustainability

The company's short-term cost coverage dropped from 133% in 2016 to 87.5% in 2017. It is obvious that Yeelen Ba suffered cashflow issues, mainly due to a low customer number and the resulting lack of revenue, and fixed costs which couldn't easily be reduced. A customer level of around 6,000 and a steady payment rate at 95% is required to reach financial sustainability.

Contracts and investments

In 2016, with the help of FRES, Burkina Faso was awarded an IRENA subsidy by the Abu Dhabi Fund for Development. FRES has not yet been able to benefit from this subsidy, however, because the terms for cooperation as proposed by FDE (the local Rural Electrification Agency) proved unacceptable. Further negotiations to try and find common ground between the parties in 2017 did not lead to a successful outcome. Negotiations have ceased.

Products, services and rates

Rates

In 2017 Yeelen Ba provided three SHS service levels at a rate between CFA 3,845 (€ 5.86) and CFA 9,050 (€ 13.80) a month.

Customer care

Yeelen Ba registers all customer complaints, remarks and observations in a specific database. A total of 844 complaints reached the company in 2017, largely related to technical break-downs. All of the complaints had been solved by the end of December 2017.

Organisation, governance and supervision

On 31 December 2016, Yeelen Ba employed 29 people directly, zero people indirectly, and had two trainees

Workforce profile 2017

Number of employees	29
Male / female	24/5
Permanent / temporary contract	5/24
Fulltime / part-time	29/0
Inflow / outflow men	12/3
Inflow / outflow women	0/0
Employees aged 15-24	0
Employees aged 25-34	22
Employees aged 35-54	7
Employees aged 55 or over	0
Number of men / women in Mgt	3/1
Number of male / female store managers	10/2
Number of male / female interns	1/1

Salary and terms of employment

Employees received a fixed salary. The legal minimum wage in Burkina Faso was FCFA 33,139 (€ 51) a month in 2017, whilst the salary of a fulltime employee starting in an operational function at Yeelen Ba was FCFA 57,000 (€ 87) a month. Yeelen Ba provided its employees with health care insurance, social

security, disability insurance coverage, pregnancy and maternity/paternity leave and pension provisions. All employees had at least one performance evaluation in 2017. The number of grievances was eight, mainly because of delays in salary payments due to the lack of cash-flow.

Health, Safety and Environment (HSE)

The total number of sick days was 27, which included those caused by two motorcycle accidents. Despite Yeelen Ba strictly supervising the rules set to prevent accidents, such as no driving (motorcycles and cars) after 18:00, the compulsory use of helmets, and no transport of batteries on motorbikes, one agent was seriously injured in a motorbike accident in 2016, which led to his death in 2017.

Staff development

The internal accountant received a three-day training on the SYSCOHADA accounting system which was revised for West Africa in 2014.

A consultant from Alliance Soleil was sent to Yeelen Ba's headquarters to train the technicians on SHS installation and maintenance.

The commercial team received a training on sales techniques and customer service.

Management and governance

The General Manager of Yeelen Ba, Bourahima Yameogo, left the company in December 2017. A former member of the MT of Yeelen Kura started as General Manager in January 2018. He reports to the Board of Directors of Yeelen Ba.

The shares of Yeelen Ba owned by Nuon were transferred to FRES on the 4th of January 2017. On 31 December 2017 the Board consisted of:

- Caroline Nijland – Chair
- Djibril Séméga – Member

Challenges and objectives

The biggest challenge of Yeelen Ba is the continuity of its business at a level of 3,500 customers for a period for which no funds for further growth have yet been secured. In order to achieve the above, FRES has set the following objectives for the team at Yeelen Ba:

- strengthening its management
- tightly controlling the administration of equipment in the field and stock management.
- improving the fee collection activities in the field.
- setting performance related targets on all levels.
- training staff on marketing.



Technician of Yeelen Ba installing light in a household in Kourinion (Burkina Faso)



Banfoulaguè (Burkina Faso)

FRES Uganda

Uganda



2010
year founded

100% FRES
shareholder

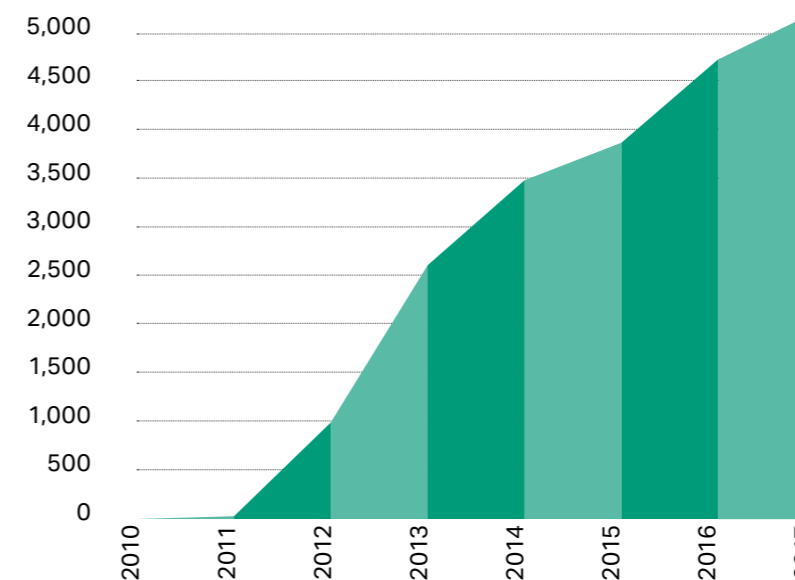
5,238
customers

64
employees

4
energy stores

SHS
products & services

Number of customers



Uganda, a country of over 240,000 km², is situated on the equator in Southern Africa. 20% of the Ugandan population of 43 million lives in poverty. The country holds the 163th place out of 188 on the most recent UNDP Human Development Index. Approximately 20% of the inhabitants have access to electricity. For inhabitants in rural areas, this is 8%, often limited to the cities and trading towns along paved roads (IEA, World Energy Outlook 2014). The country is politically stable.

FRES Uganda was founded in 2010. The company delivers SHS services to the Southwest of Uganda in ten districts, including Kgenjojo, Sembabule, Kyenjo, Rukungiri, Kyegegwa. Its head-office is located in Mbarara.

Results 2017

Payment rate

FRES Uganda's payment rate has declined, from a payment rate of 75% in 2016 to a rate of 65% in 2017.

The discovery of a fraud case at FRES Uganda at the start of 2017 has led to a high turnover of staff and a temporary disruption of the fee collection activities, affecting the overall payment and installation performance. FRES Uganda has since focused on proper collection, processing, analysis and reporting of financial data.

Operational and replacement costs

In 2017, the company managed to stay within budget.

Number of customers

FRES Uganda installed 1,387 customers in 2017 whilst 860 customers left (compared to 321 in 2016). The net result was an increase of customers from 4,711 in 2016 to 5,238 in 2017.

Financial sustainability

The company saw its cost coverage decrease from 131% in 2016 to 104% in 2017. Its long-term financial sustainability indicator has also decreased from 86% in 2016 to 64% in 2017.

Contracts and Investments

The installation objectives for 2017 as agreed with the European Union (for 2015-2018) and the Ministry for Foreign Affairs of Finland (for 2015-2017) were achieved. The subsidy contract with the Ministry for Foreign Affairs of Finland was successfully concluded and finalised as planned by the end of 2017.

Research

A marketing brochure is being developed especially for FRES Uganda to improve marketing efforts.

The mobile payment system that is being developed aims to minimise the risk of fraud and improve fee collection. A feasibility study was conducted in 2017 and the results indicated that mobile payment is feasible in the areas where FRES Uganda is active.

Products, services and rates

Rates

FRES Uganda offers five service levels including relatively large systems catering to the specific demands of business customers in the concession area. The monthly SHS service fee ranges from UGX 23,000 (€ 5.15) to UGX 69,000 (€ 15.45).

Customer care

All customer complaints, remarks and observations are registered in a database, and attended to within two weeks. On a weekly basis, the company received an average of 57 complaints (lamps and fuses blown, inverter failures, faulty switches, DC plugs or sockets burnt, etc.).

Organisation, governance and supervision

Since the discovery of a fraud case, the board has issued instructions for the establishment of an anti-fraud policy, together with the development of other measures and procedures focusing on enhanced internal control and increased efficiency. These were implemented and are being supervised by the internal controller who reviews all internal processes, systems and policies and makes recommendations to ensure risks within the company are kept to a minimum.

By the end of December 2017, FRES Uganda employed 64 people directly (49 staff members with permanent contracts, as in 2016, plus 15 seasonal workers, involved in a special sales campaign) and 111 indirectly, on a commission basis.

Workforce profile 2017

Number of employees	64
Male / female	48/16
permanent / temporary contracts	49/15
Fulltime / part-time	64/0
Inflow / outflow men	8/7
Inflow / outflow women	6/5
Employees aged 15-24	2
Employees aged 25-34	56
Employees aged 35-54	6
Employees aged 55 or over	0
Number of men / women in mgt	3/3
Number of male / female store managers	3/2
Number of male / female volunteers	0/0
Number of male / female interns	21/8

Salary and terms of employment

In addition to a permanent salary, FRES Uganda offers its employees, health insurance, pregnancy leave, pension provisions, and life insurance. The entry-level wage of an employee in an operational function at FRES Uganda is UGX 428,000 (€ 95.76) a month. The government of Uganda does not have a legally set minimum wage. Debt collection employees were motivated via performance bonuses. All employees had at least one performance evaluation.

In 2017, 53 of the 55 submitted complaints were resolved. Two complaints about salary couldn't be resolved by management. Like last year, complaints concerned requests for higher pay, lack of personal protective gear and mechanical breakdowns due to an aging fleet. Fleet and protective gear issues have been resolved. Salaries were not increased due to the low revenue (payment rate) in 2016.

Health, Safety and Environment (HSE)

Thirty injuries and a total of 225 sick days were reported in 2017, of which 124 days were related to accidents and 101 days to regular illness; 36 days more than in 2016. The most serious injuries resulted from road traffic incidents caused by reckless driving, poor roads and limited driving experience. Measures taken to prevent injuries include defensive driving training for all staff, together with restraint in recruiting inexperienced drivers/riders.

Staff development

All staff took part in various training programmes, ranging from sales, technical and debt collection training to taxation,

customer care, management training and a specific training related to the company's new bookkeeping system.

Management and governance

A new Marketing Manager, Fee Collection Officer and Internal Controller joined the company's MT.

On 31 December 2017 the Board consisted of Caroline Nijland (Chair) and Joop Lasseur (Interim Board Member).

Challenges and objectives

FRES Uganda's objectives for 2018 focus on expanding the SHS customer base by 771 new customers, reinstalling 800 repossessed systems, increasing long-term cost coverage by implementing new marketing strategies that will increase the scale of operations, and implementing mobile payment for all customers. Internal controls will remain strict to prevent and combat fraud.



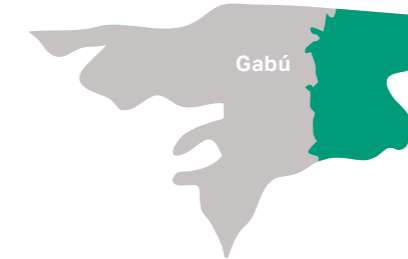
Nurse clinic in Mugarutsya (Uganda)



Church St John's Bwera Parish in Bushenyi (Uganda)

FRES Guiné-Bissau

Gabú, Guinea-Bissau



2011
year founded

100% FRES
shareholder

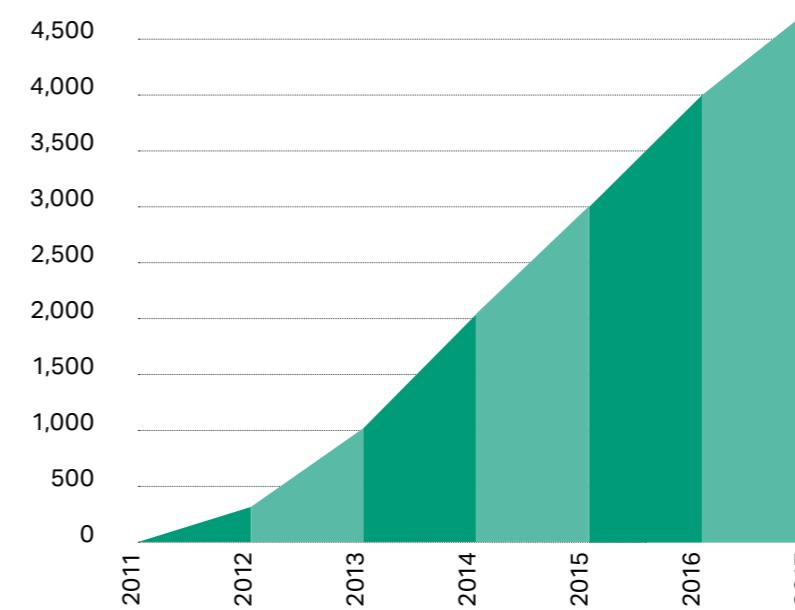
4,780
customers

28
employees

11
energy stores

SHS
products & services

Number of customers



Guinea-Bissau, in West Africa, has approximately 1.8 million inhabitants and a land area of 36,125 km². The country holds the 178th place on the most recent UNDP Human Development Index. A mere 21% of the nation's population has access to electricity. Guinea-Bissau has had a long history of political instability. The elections in 2014, which took place after the military coup of 2012, meant a moment of hope. After a government had been appointed by parliament, donors promised to help. But hopes of an improvement in the economy had to be scaled down when disagreements between politicians and several government changes in 2015 and 2016 led to new instability and the withdrawal of donors. In spite of these problems FRES Guiné-Bissau manages to grow steadily.

FRES Guiné-Bissau was founded in 2011 and provides SHS services. Its head-office is in the city of Gabú in the eponymous province in the east of Guinea-Bissau, bordering on Senegal and Guinea.

Results 2017

Payment rate

FRES Guiné-Bissau started the year with very low payment rates, still feeling the impact of the 2016 rumours about the services becoming free. Thanks to the company's efforts to diminish non-payment and increase revenue (client sensitisation, consistent disconnection of non-paying customers, customer retention policy application, etc), the payment rate rapidly increased until it reached its peak of 79% in August. The 2017 payment rate was 68%, 8% higher than in 2016.

Operational and replacement costs

The company's operational and replacement costs in 2017 remained within budget in 2017.

Number of customers

FRES Guiné-Bissau had 801 new customers, ending the year with a customer base of 4,780 customers, thus failing to reach its 2017 target of 5,250 customers. This was caused by a clean-out of the customer base and serious delays in the delivery of SHS due to the customs clearance in Bissau.

Financial sustainability

The company increased its short-term cost coverage from 176% to 346%, while its long-term cost coverage increased from 108% to 193%. FRES Guiné-Bissau is hereby still the only FRES company that meets its obligations in the short and long term.

Contracts and investments

The present subsidy contracts with the EU and OFID required FRES to install 1,000 SHS systems and connect 250 customers to electricity generated by the Contuboel mini-grid in 2017. FRES Guiné-Bissau achieved its target for mini-grid customers but did not manage to install all SHS planned, ending the year 191 SHS installations below target. All SHS planned but not installed in 2017 will be installed in 2018.

Research

Fifty units of the third prototype of the 'Cobrador Eletrónico' device were sent to Guinea-Bissau. As in Mali (where the same device was simultaneously tested), these devices should enable FRES Guiné-Bissau to disconnect (non-paying) customers remotely via the local mobile network. The devices were elaborately tested in both countries in the second half of the year. A couple of technical issues still need to be fixed before we can decide to implement this device in other FREScos in 2018 as well.

Products, services and rates

Rates

In 2017, FRES Guiné-Bissau provided SHS services on three service levels at a monthly rate ranging from CFA 6,000 (€ 9.14) to CFA 20,000 (€ 30.44). Around 52% of the customers use the lowest service level, 47% the medium level, and 1% the high service level.

Mini-grid

In 2017, a 100% solar power plant was successfully implemented and taken into operation. It represents a substantial improvement in the lives of the people in the village. Prior to the installation of the power plant, the only access to energy for the inhabitants of Contuboel was through a diesel generator that offered electricity to 150 people for four hours a day. At the end of 2017, 253 households were connected to the mini-grid.

Organisation, governance and supervision

In 2017, FRES Guiné-Bissau employed 28 people directly and 80 indirectly, on a commission basis. Additional staff was recruited as well.

Workforce profile 2017

Number of employees	28
Male / female	23/5
Permanent / temporary contract	11/17
Fulltime / part-time	28/0
Inflow / outflow men	16/3
Inflow / outflow women	23/0
Employees aged 15-24	0
Employees aged 25-34	16
Employees aged 35-54	12
Employees aged 55 or over	0
Number of men / women in MT	4/0
Number of male / female interns	2/0

Salary and terms of employment

The 28 employees with a permanent/temporary contract are provided with health and life insurance. In 2017, the starting salary of an employee of FRES Guiné-Bissau in an operational function was 35,000 FCFA (€ 53) a month, while the legal minimum wage was 29,500 FCFA (€ 45) a month in 2017. FRES Guiné-Bissau outsourced fewer activities than in 2016. The company decided to put more staff on the payroll and provide more job security and better incentives. Five employees had at least one performance evaluation in 2017.

Health, Safety and Environment (HSE)

One accident occurred in 2017. Precautions were taken to avoid accidents in the future, such as no working or driving at night and the mandatory use of appropriate work clothing and safety shoes when on duty. There were 93 regular sick days (45 days of one staff member with chronic health issues) and another four sick days related to accidents in 2016.

Staff development

Of the people working for FRES Guiné-Bissau, 16 men and two women took part in various training programmes (technical training to strengthen the capacity of technicians in the field of photovoltaic kits and a marketing training relating to techniques on how to retain clients and improve sales).

Management and governance

In 2017, FRES Guiné-Bissau welcomed a new Technical Manager, Marketing Manager and Finance Manager to its Management Team.

On 31 December 2017, the FRES Guiné-Bissau's Board of Directors consisted of Caroline Nijland (Chair) and Serge Leijten (Interim Board Member).

Challenges and objectives

FRES Guiné-Bissau aims to achieve the target set by the EU Regional and OFID subsidies of 5,297 customers by the end of 2018. Other major focal areas are increasing the payment rate of its customers, and realising management development and a follow-up of internal procedures and customer service.



Regional Hospital in Gabù (Guinea Bissau)



FRES CORPORATE

Mbarara (Uganda)

FRES NL

FRES NL has an ANBI status (which means that it is accepted by the Dutch tax authorities as an institution serving the public interest). It is the head office of FRES and located in the Netherlands. Its main activities include:

- Fundraising;
- Procurement;
- Organizational support;
- Developing partnerships;
- Governance of FRES companies;
- Financial supervision;
- Risk management;
- Stakeholder management.

In order to keep the operational expenses in the Netherlands as low as possible, FRES NL works with a small team of paid employees and a large, flexible number of experts who volunteer their efforts. The added value of the latter is extremely important to FRES' activities. The employees of FRES Netherlands are supervised by the General Director of FRES NL. The General Director is supervised by the FRES Board. A performance review with each employee takes place annually.

Paid employees

At the end of 2017, FRES Netherlands had five paid employees. During the year, approximately 33 days were spent on training and education during working hours. Seven employees followed courses that benefited their work.

Volunteers

In 2017, ten experts worked on specialist tasks for FRES on a pro bono basis. Moreover, one volunteer worked on a new marketing brochure and a student from Hogeschool Van Hall Larenstein supported the team of FRES NL as an intern.

In addition to the aforementioned experts, the FRES Board and the members of the FRES Supervisory Board contributed time and efforts without being paid for their services.

Fundraising

Policy, strategy and objectives

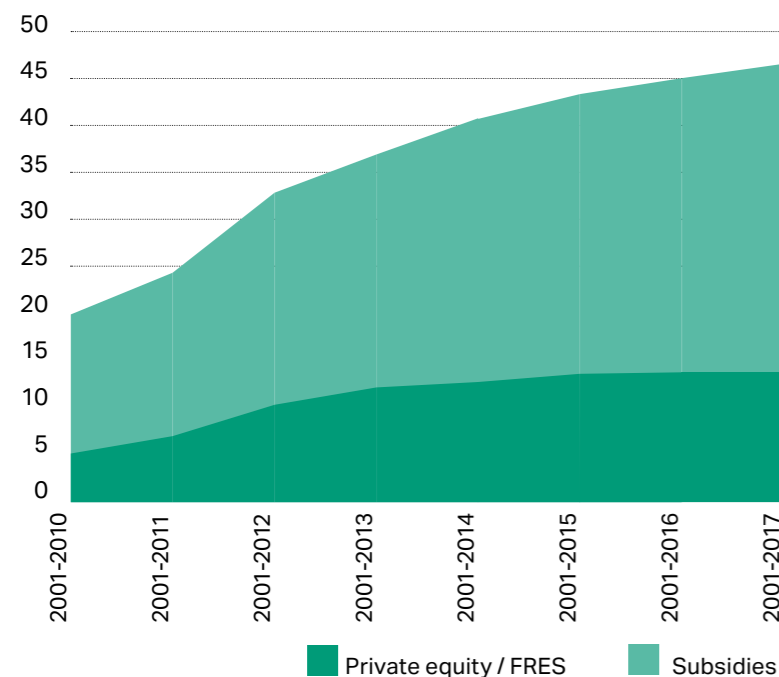
FRES is a non-profit foundation that looks for external financing to achieve its goals. We attract funds by cooperating closely with our sponsors and building close relationships with governments. FRES has chosen not to have an active private small-donors policy.

FRES aims to obtain subsidies from governments and multi-lateral international organisations for the financial means to expand its customer base. Additionally, we strive to establish relationships with business donors.

We look for parties that match in terms of policy, objectives and work sphere. We only submit subsidy proposals if the subsidy conditions match our strategic objectives to prevent that our policy becomes subsidy-driven. Business donors and sponsors support us in kind (services or goods) or with funding.

Investments 2001-2017

in million euros



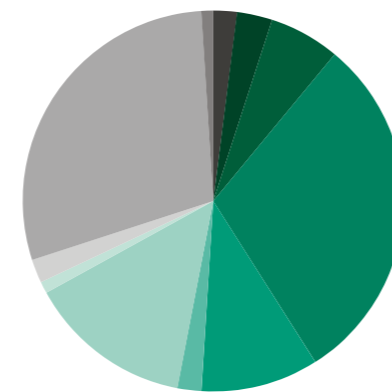
Objectives

FRES currently has running subsidy contracts valid until 2018. Under these contracts € 7.3 million is available for the expansion of operations by the end of 2018. In terms of further expansion, FRES aims to acquire € 1.3 million in new subsidies as of 2019.

Investments

In the period 2001-2017, FRES invested a total amount of € 46 million in the FRES companies, of which € 32.5 million was financed through various subsidies and € 13.5 million via FRES itself and private funds.

Total investment per subsidy source 2001 - 2017



- Gov. NL - ORET/MILIEV
- Gov. NL - PSOM
- Gov. NL - PPP
- Gov. of South Africa
- Gov. of Mali/WB
- Gov. of Uganda/WB
- European Union
- Gov of Finland / EEP
- Stichting Doen
- Private equity/ FRES
- OFID-EU 2016

Subsidies

During the year 2017, subsidy negotiations with IRENA, ECREEE/UNIDO, and the World Bank (SREP) showed little progress:

- In 2016, an IRENA (Abu Dhabi Fund for Development) subsidy was successfully negotiated by FRES for Burkina Faso. However, in negotiations between the receiving party FDE (Rural Electrification Agency) and Yeelen Ba, the terms and conditions proposed by FDE were not acceptable to Yeelen Ba/FRES. Negotiations were put on hold.
- An ECREEE/UNIDO subsidy is still awaiting effective negotiations for setting targets between UNIDO and the government of Guinea-Bissau. Only once such negotiations are successfully concluded, subsidy proposals can be processed. Due to the uncertain investment climate in Guinea-Bissau, associated with recent political unrest in the country, decisions are still pending.
- World Bank (SREP): Since the Bla diesel to solar mini-grid conversion plan was halted because of the grid's expropriation, and due to the uncertain investment climate in the concession area of Yeelen Kura no contract for further investments could be signed.

In 2017, FRES continued the implementation of its existing subsidy programmes:

- The Government of Finland (EEP: Energy and Environment Partnership) conceded a subsidy value of € 600,000 to scale up SHS activities in Uganda. This programme was successfully finalised in 2017, achieving the target of 1,600 customers plus an extra 270 customers, totalling 1,870 new connections.
- OFID (OPEC Fund for International Development) contributed € 450,000 to support the implementation of a new solar mini-grid in Guinea-Bissau. The solar mini-grid started operations successfully in the second quarter of 2017, connecting 253 customers.
- The projects subsidised by the EU Regional and EU Fragile States programmes with € 9.9 million to scale up SHS and mini-grid activities in four countries are being rolled out with some delays on which we had only little influence. We hope to get an extension of two years for both programmes.

Mid-term and final project evaluations are carried out by external parties. The effectiveness of our work and investments are monitored from the perspective of FRES' two key stakeholders:

- Donors who want assurance about sustainability and cost effectiveness of project outputs (number of customers, number of employees, amount of electricity generated, the way electricity is generated etc.);
- End users who require service levels that adequately respond to local needs and stimulate development (affordable rates, after-sales care, supporting economic activities etc.).

Useful recommendations from each project evaluation are implemented in the respective company as well as in other FRES companies.

Business donations

In 2017, FRES received a business donation from Alliander, which covered part of our desk expenses and the salary of the General Director. This contribution was made under an agreement of which the term was renewed in 2016 to cover a period of four additional years (2016-2020).

Voltiq B.V. made a Christmas donation to FRES at the end of 2017.

A private firm made a donation aimed at scaling up access to modern electricity for a local farmer cooperative comprising over 190 farming families. This activity focuses mainly on the Karangana village in Southeast Mali.

Private donations

Private donations were received directly from 15 donors. Furthermore, we indirectly received two private donations from Nuon customers who donated the customer points they saved as members of the Nuon Exclusive Programme to FRES. The first donation comprised contributions of 559 customers, and the second, which took place in the second half of 2017, of 432 customers.

The money donated by private donors in 2017 will be used for customers of FRES Guinea-Bissau.

Complaints

Should FRES receive a complaint from a private donor, we aim to react within one working day. After receiving the complaint, we will contact the person who submitted it and offer a solution. We did not receive complaints in 2017.

Governance

FRES Board

At the end of 2017, the FRES Board consisted of four members: Annemarie Goedmakers (CEO/President), Serge Leijten (CFO), Joop Lasseur (COO) and Paul Gaalman (Member). Paul Gaalman had been supporting FRES in financial matters since August and was appointed on 15 November 2017. The Board decided on an interim period with four members since two members had indicated that they did not want to be reappointed at the end of their term.

The FRES Board meets at least once a month to discuss policy matters and the progress of the FRES companies based on reports from the local companies and progress reports from their General Manager.

A total of 12 board meetings took place over the year. Points discussed included:

- The governance model of FRES and its companies;
- Progress of FRES companies: evaluation reports, financial reports;
- Benchmarks between FRES companies;
- Investment proposals for expansion;
- The annual accounts and annual report 2016;
- The Business Plan 2018-2022 and annual plan/budget 2018;
- A new organisational structure;
- Composition and role of the Supervisory Board;
- Partnerships;
- Performance of FRES NL.

The FRES Board members do not receive remuneration for their work. Their expenses are compensated under the condition that they are in line with the compensation policy set by the FRES Board to prevent excessive expenses. In 2017, costs incurred by board members mainly consisted of travel and telephone expenses.

FRES Supervisory Board

At the end of 2017, the FRES Supervisory Board consisted of Peter Smink (Chairman), Wim Sinke, and Paul Hol. Paul Hol joined the Board in January 2017.

The FRES Supervisory Board was in regular contact with the FRES Board and met once in November of 2017 to discuss and decide on:

- The annual accounts and annual report 2016;
- The Business Plan 2018-2022 and annual plan/budget 2018;

Wijffels Code

FRES endorses the Wijffels Code, a Dutch code for the good governance of charities. The accountability declaration (see appendix 5 on www.fres.nl) states how we shape the three principles of this code: separation of the supervisory, managerial and executive functions; optimal use of funds; and optimal relationships with interested parties.

An overview of the board members, and their additional functions, is listed in appendix 4 (see www.fres.nl).

Monitoring and evaluation

The policy goals, priorities and conditions are recorded in business plans. They serve as the basis for the annual plans and budgets for the FRES companies and FRES Netherlands. The execution of plans is monitored through monthly reporting, monthly progress meetings, benchmarking, performance reviews, etc. Goals and priorities are adapted to the outcomes of monitored activities where necessary.

The local management of each FRES company held monthly progress meetings with the members of their Board of Directors (BoD) via teleconferences. Twice a year a formal Board meeting is held with each FRES company. In addition, Directors visited every FRES company at least once in 2017. For the composition and tasks of each BoD see chapter 2.

All General Managers of the FRES companies attended the FRES Company Week in the Netherlands from 29 May until 1 June 2017 during which the 2016 business results were evaluated and future strategy and business plans were discussed with the FRES Board.



Michelle Makoni, General Manager NuRa Energy, South Africa

Outlook 2018 and beyond

In the final quarter of 2017 the FRES Board adopted the Business Plan for 2018-2022. After having witnessed significant customer growth in former years, the performance objectives for its local companies reflect FRES' objective of creating financially sustainable companies. Customer growth targets are restricted to requirements from donors laid down in subsidy agreements. Since 2014, the performance of FRES companies has been assessed on (i) payment rate; (ii) operating and (long-term) replacement costs; (iii) customer retention/growth; and (iv) financial sustainability.

Operational excellence is a core objective in the five existing companies, based on strategies to control costs and maximise revenue. FRES companies need eventually to become financially independent, with income from customer fees being sufficient to pay for maintenance, operational management, and replacement investments, while staying at a once reached customer level. Improving control mechanisms to minimise fraud and irregularities has been an important focus within the FRES companies as well.

Training and personal development of local staff continues to be important. Cooperation and exchange of skills and knowledge between FRES companies was strongly encouraged. In 2017, experienced staff from Yeelen Kura in Mali transferred new skills to the staff of FRES Uganda on issues related to bookkeeping and financial administration. Yeelen Kura also transferred skills related to marketing issues to FRES Guinea-Bissau. Managers from all FRES companies received a training on marketing and customer care during the Annual Company Week in May/June in Amsterdam.

Risk management

Apart from the solid opportunities for FRES to successfully contribute to rural electrification, there are also risks and threats involved. FRES is very aware of these facts and keeps a close eye on risks to respond adequately. We have mapped the strengths and weaknesses, opportunities and threats, as summarised in the SWOT below.

Strengths

- Long-term experience in electrification of rural areas in Africa;
- A proper network in the international development and solar energy sector;
- A competent team with committed Board Members;
- A standardised and sustainable business model as blueprint, easily reproducible in various countries;
- Proven ability to succeed in a rapidly expanding market;
- Major experience in acquiring subsidies;
- Strong partners in the Netherlands;
- A solid Business Plan 2018-2022 and detailed plans of FRES companies for realising their objectives;
- Considerable experience in negotiating terms and conditions for concessions and rate structures with local governments;
- Centralised purchasing agreements;
- Ample experience in the field of mini-grids.

Opportunities

- 1.2 billion people have no access to electricity;
- Greater priority within governments for rural electrification, e.g. to slow down migration from rural areas to the city;
- Cost reductions in solar hardware;
- Innovations that improve business processes; e.g. mobile payment, prepaid metering, remote system control;
- The international commitment (e.g. the UN 2014-2024 “Decade of Sustainable Energy for All”, the Sustainable Development Goals, and the Paris Climate Agreement);
- The interest of international donor agencies and social investors in solar solutions for rural electrification in Sub-Saharan Africa.

Weaknesses

- Companies in different countries with variable local conditions;
- Insufficient customer retention;
- Lack of transparency in national policies, operation permits and grid expansion planning;
- Payment arrears (‘non-payment’);
- Lengthy procurement procedure for international tenders;
- Low margin business, because rates must be kept as low as reasonably possible to enable access to as many people as possible;
- Dependence on subsidies;
- Difficulty to find staff.

Threats

- Fraud;
- Inadequate legal opportunities to address fraud;
- Political instability;
- Increasing transport costs;
- Increasing number of competitors in solar systems market;
- Long, bureaucratic, and unpredictable government procedures;
- Risky and lengthy procedures involved with donor agreements;
- Insufficient rate levels for mini-grids for long-term sustainability;
- Unplanned or illegal encroachment of grid connections;
- Threat of nationalisation;
- HIV and other serious health risks.

Utilising opportunities, countering threats and fighting weaknesses

Identifying and controlling risks is one of the responsibilities of the FRES Board. To utilise opportunities and counter the impact of threats, we have formulated a number of general strategies:

- We focus on expanding in countries where we are already active by increasing the scale of the existing companies to reduce unit costs, starting in other countries only after thorough investigation.
- We keep a close eye on our expenses to ensure that our services remain affordable to our customers. We create scale benefits by connecting customers in clusters, replace diesel generators with solar power stations, implement payment via mobile phones, etc.
- We keep abreast of technological developments by exploring innovative solutions in photovoltaics, energy storage systems and remote control systems.
- We work toward establishing a robust database management system that can act as a harmonised data inflow and outflow centre covering all financial and non-financial indicators provided by FRES companies.
- We strive to improve customer care services to quality services at all times as we believe that satisfied customers are a prerequisite for increased payment rates.
- We reduce the risk of low purchasing power by selecting regions with an economy that also serves markets outside the own region.
- We purchase solar systems centrally, unless local procurement is competitive in terms of price and quality. We ensure that the systems our companies use are interchangeable and standardised.
- We try to secure good relations with our stakeholders via a dedicated strategy for each type of stakeholder (donor, volunteer, staff, customer, etc.).
- We require an adequately implemented HSE (Health, Safety and Environment) policy in all local FRES companies. A standardised HSE policy is being implemented across all companies.

Some risks that received special attention in 2017 are described below.

1. Financial sustainability

FRES companies must achieve financial sustainability as soon as possible by generating sufficient income to cover all operating expenses and replacement costs, also in the medium and long term. In FRES’ business model, financial sustainability relies on economies of scale (number of customers), effective collection of payments from customers, and the ability to minimise the costs of operations and replacements. Together, FRES and its local companies have set key performance indicators (KPIs) which are monitored via monthly reports.

The performance of FRES companies is assessed on payment rate; operating and replacement costs; customer retention/growth; and financial sustainability.

2. Sustained growth

In the 21st Conference of the Parties (COP21) to the UNFCCC in 2015, many agreements were signed for financial support for developing countries and the financing of the global transition towards low-carbon, resilient economies before and after 2020.

In the past, FRES has at times suffered from slow customer growth due to the lack of subsidies available for investments. We aim to resolve this issue by establishing good relationships with donors and providing them with a continuous flow of investment proposals.

3. Enhanced monitoring

FRES wants its companies to implement a standardised data management system that will enable the easy exchange of information between local company departments, between companies, and with the head office in Amsterdam. Currently all companies use their own administrative system. In November 2016, an expert from PUM visited NuRa and Yeelen Kura to study the data, processes and SHS online management system, resulting in a recommendation for possible ERP solutions. In 2017, priority was given to establishing an internal data management system in FRES Amsterdam as the central point for FRES-wide data management.

4. Payment arrears

Maintaining an acceptable payment rate is a major challenge for all FRES companies, and requires much effort. Mobile payment (if available in the country) and a metering system that shuts off automatically when the customer’s credit has been used up are solutions that are used to mitigate the risk of low payment rates and fraud. In 2016, testing of this metering system led to improvements. Pre-paid meters for day/night mini-grid tariffs were implemented in Guinea-Bissau, and the third prototype of the Cobrador device was tested in Mali and Guinea-Bissau. This device would enable FRES companies to disconnect non-paying customers remotely. A study showed positive results on the feasibility of mobile payment in the areas where FRES is active. We will start a pilot in 2018.

5. Political instability and threats of terrorism

Developments in West Africa show that political stability is a factor we need to consider. The political unrest in recent times in Mali, Guinea-Bissau and Burkina Faso continues to influence the economies of these countries. This has impacted both the growth of the number of customers and their ability to pay the fees and has consequences for the employees as well. In cases of acute unrest, the safety of FRES employees is our highest priority. Terrorist attacks in Southeast Mali led to the development of an Emergency Response Plan for crisis

Financial supervision

Planning and control

The Board is responsible for the work and quality of the FRES activities and the necessary adjustments. PwC inspects the annual accounts and issues an audit opinion. PwC specifically tests against the guidelines that apply for fundraising institutions.

Moreover, our donors function as external supervisors by monitoring and evaluating project results.

All FRES companies are audited annually by an external auditor in accordance with the applicable laws and regulations.

Our asset manager issues quarterly reports on the development of the investments. He accounts for the results of the portfolio to the CFO three times a year, and measures the results of the portfolio, compares them to various benchmarks, and analyses the differences in performance.

The reports are also sent directly to all members of the FRES Board, and the results are discussed in the Board at least once a year. Based on these results, the FRES Board decides whether the investment policy should be adjusted.

See Part IV (Annual accounts) for the value development of the investment portfolio.

Asset management

Since 2009, the management of FRES-owned funds that are available for a longer time period, have been allocated to an external asset manager (ING Bank).

The objective for our asset manager is to achieve optimal effectiveness within a moderately defensive investment profile, while respecting the ethical and social boundaries set by FRES. We have an asset management agreement in place with ING Bank that includes our investment policy. The policy excludes investments in activities that are associated with any of a number of specified themes such as corruption, environmental offenses, weapons, violation of social laws and codes or human rights, child labour, tobacco, and alcohol.

Under the asset management agreement, the investment horizon is four to eight years. The portfolio distribution that belongs to this risk profile in general is: 50-70% of the assets are solidly profitable, 30-50% is invested in shares, and up to 10% of the funds remain liquid. To control the risks, the asset manager works in accordance with a structured investment process. Funds are invested across a selection of sectors and regions, and the portfolio is continuously screened on the sustainability criteria that have been established.



Sikhemelele Energy Store, KwaZulu-Natal (South Africa)

management. The plan was implemented in Mali in 2017 and will be rolled out in other FRES companies as well.

6. High fuel prices

A large part of our operational expenses comprises transport costs needed to perform installation and maintenance activities. We expect fuel prices to increase further in the coming years, which, in turn, will lead to higher transport costs. FRES companies therefore aim to optimise transport logistics and work in areas with high customer densities.

FRES aims for solar powered plants that use diesel only as back-up in case of maintenance, and converts existing mini-grids accordingly. Demand Side Management (DSM) policies, for example via load shedding or differentiated pricing, were implemented in 2017.

7. Rates for solar mini-grids

Rates for Yeelen Kura's solar mini-grids are currently sufficient to cover operational expenses, but insufficient to accumulate the financial reserve for the replacement of key mini-grid components in the long term. Yeelen Kura continues to work with Mali's Rural Electrification Agency (AMADER) to increase rates but has not yet succeeded in reaching financial sustainability. In Guinea-Bissau, a sustainable rate structure was approved by the Ministry of Energy in 2016.

8. Illegal grid connections

NuRa is facing difficulties in maintaining its customer base. One of the problems involves (il)legal grid connections. NuRa will no longer install SHS for new customers in areas prone to illegal grid connections.

9. Fraud prevention

FRES faces incidents of fraud, and actively attempts to prevent and combat it within its companies. We aim to make fraud unrewarding and consequences of fraud a disincentive to colleagues and customers. For that purpose, FRES developed a standardised anti-fraud policy in 2017 that will enter into force in 2018, and will be applied in all FRES companies. Improvement of control mechanisms will be a focal point in all FRES companies in 2018. A standardised policy for the delegation of authority and authority limits has been implemented in all FRES companies. This has led to stricter audits and more emphasis on internal controls.

10. Continuity reserve

FRES has a continuity reserve of € 250,000, to be used in case the activities of FRES should suddenly stop (either partly or completely) for whatever reason. Should this occur, it would especially have consequences for FRES NL. The reserved amount covers proper completion of the then needed activities in Amsterdam.

Partners



2002
The Directorate of Minerals and Energy (DME) of the **South African government** signed a first agreement with NuRa in 2002. Many contracts followed.



2004
FRES was founded by **Nuon** in 2004. In 2006, a five-year agreement stipulated that Nuon would make an annual contribution to FRES and make an employee available. In December 2008, Nuon entered a public-private partnership with FRES and the Dutch Government to support the millennium objectives in Africa for the period 2008-2015.



2006
The Mali government entered into a first agreement with Yeelen Kura via AMADER in 2006. It was the start of a close and successful cooperation.



PwC (PricewaterhouseCoopers Accountants N.V.) The cooperation between PwC and FRES was further developed in 2012 based on a study of the socio-economic impact of the activities in the FRES countries (performed at a reduced rate).



2007
The European Union subsidised the start-up of an electricity company in Burkina Faso in cooperation with Nuon, Yeelen Kura and two local partners. It implied the allocation of a subsidy within the framework of the ACP-EU Energy Facility and ran until July 2015. Within the same programme, a subsidy was approved for a new FRES company in Guinea-Bissau in December 2010. In 2014, FRES and the EU reinforced their cooperation by signing two new subsidy contracts that support FRES in four countries with a combined subsidy value of € 9.9 million for four years.



2008
The Dutch government through **DGIS** (Directorate-General International Cooperation), Nuon, and FRES entered into a PPP for a rural electrification programme that should ultimately lead to 100,000 customers (2008-2015). Nuon and DGIS each promised half of the € 20 million needed for 28,000 new SHS



2009
FRES has been cooperating with **The Resource** in Amsterdam since 2009. This partner brings together supply and demand in the fiscal labour market. Three specialists work for us voluntarily one day a month to advise us in the field of partnership taxes, VAT and wage tax.



2010
The Government of Guinea-Bissau supported FRES in its application for an EU subsidy. This led to the start-up of FRES Guiné-Bissau in 2012. A current discussion point involves the legal implications of providing electricity to customers via solar powered mini-grids.



We received subsidies via the rural electrification agencies in Mali and Uganda supported by the **World Bank** for the FRES company in Uganda and the construction of solar mini-grids in Mali.



International law firm **Allen & Overy LLP** provided us with legal advice in 2010, 2011 and 2015 with regard to the FRES brand name and our statutes.



In 2010 and 2011, the international law firm **Clifford Chance LLP** supported FRES in the development of an agreement for the delivery, installation and maintenance of eight solar power stations in Mali. In 2013 and 2014 Clifford Chance provided FRES with legal assistance at reduced costs.



As of 2010, we have been cooperating with **Randstad Payroll Solutions**. They provide support within the field of HR in which an HR consultant advises us on HR management and administration.



In 2010 FRES became a member of **PARTOS**, the Dutch association for NGOs working in international development. The association represents 120 Dutch development organisations active in the field of poverty reduction, humanitarian aid, human rights, and sustainable development.

customers. In July 2012, DGIS unilaterally terminated the subsidy agreement with FRES.



2011
The Government of Uganda, through its rural electrification agency (REA), provided a subsidy from the Energy for Rural Transformation (ERT) programme to FRES Uganda. The scheme disburses consumer subsidies through PV companies to provide financing for acquiring solar powered electricity.



PUM, which sends senior experts to companies and organisations in developing countries and upcoming markets for a period of two to three weeks, entered a cooperation agreement with FRES in 2011. In 2015 the agreement was extended for another two years, covering eight further assignments.



As of August 2011, **ING Bank** has been supporting FRES by not charging fees for money transfers, both national and international, which has reduced expenses considerably.



DOEN Foundation granted a subsidy of € 0.9 million for Uganda in 2011 for a period of three years.



In 2011, FRES signed an agreement with **Alliander**, formalising the cooperation in sharing expertise and knowledge. The partnership took further shape in 2012, when Alliander took over the annual contribution of € 75,000 for office costs and the salary of the Director of Business Development from Nuon for a period of four years. In 2015 an expert assisted FRES in the investigation of fraud allegations at FRES Uganda.



2012
Together with its local partner, NGO **Daridibó** in Guinea-Bissau, FRES successfully requested a subsidy of € 2.5 million from the ACP EU Energy Facility Programme. An agreement for cooperation and exchange of expertise and support was signed in 2012.



2013
FRES signed a Letter of Intent (LOI) with the **Government of Cameroon** via the Ministry of Energy for implementing FRES activities.



FRES Director Business Development Caroline Nijland became a member of the Board of the **Alliance for Rural Electrification (ARE)**, a Brussels-based high-level network. In 2015, Caroline Nijland became Vice-President of the Board.



2014
UNIDO expressed its intention to work with FRES with the objective to realise a mini-grid in Guinea-Bissau. The cooperation depends on FRES securing funding from ECREEE.



2015
FRES started a cooperation with two Dutch technical universities **TU Delft** and **TU Eindhoven**. FRES will provide research projects for Bachelor or Masters programmes.



Together with the local organisation **Centre for Appropriate Technology (CAT)** in Cameroon, FRES carried out detailed market research in the target villages of North-West Cameroon.



EEP granted a subsidy of € 0.6 million for FRES Uganda in 2015 over a period of two years.



OFID granted a subsidy of € 0.45 million for FRES Guinea-Bissau in 2015 over a period of three years.



2016
Nuon and FRES extended their partnership agreement for another four years until 31 December 2019.



Alliander and FRES extended their partnership agreement for another four years until 1 March 2020.

Stakeholder management

Policy, strategy and objectives

Apart from communication for acquiring funds, FRES communicates with stakeholders to strengthen its reputation, increase brand awareness, get support and stimulate involvement in rural electrification as implemented by FRES companies, as well as facilitate knowledge transfer. Marketing activities directed at our customers are supported by FRES NL, but must be developed by FRES companies to meet local needs.

FRES NL uses several communication tools:

- We report and discuss the progress of projects with our donors on a regular basis;
- Digital Flash Reports keep our stakeholders informed of the latest developments;
- Two stakeholder meetings take place annually in which the policies, developments, technological innovations, etc. of FRES and its companies are presented;
- Private donors of FRES receive a confirmation of registration and, thereafter, information about the results of the previous year and objectives for the new year on an annual basis;
- In case of newsworthy matters, the media receive a press release;
- Interested parties can find more information on our website;
- We use Twitter and LinkedIn in a very targeted way;
- We participate in policy setting meetings;
- Nuon customers who donate their points to FRES received an email, thanking them for their donation in 2017;
- Information on FRES features in the Nuon Newsletter which reaches one million customers.

Activities 2017

FRES organised its Annual Company Week in May/June 2017 at Nuon headquarters, Amsterdam. During this meeting, the General Managers of all FRES companies presented their companies and results. Goals and objectives for 2018-2022 were set, challenges and lessons learnt were discussed, a stakeholders' meeting took place, and a marketing and customer care training was given to all five General Managers.

FRES sent out three Flash Reports to stakeholders in 2017.

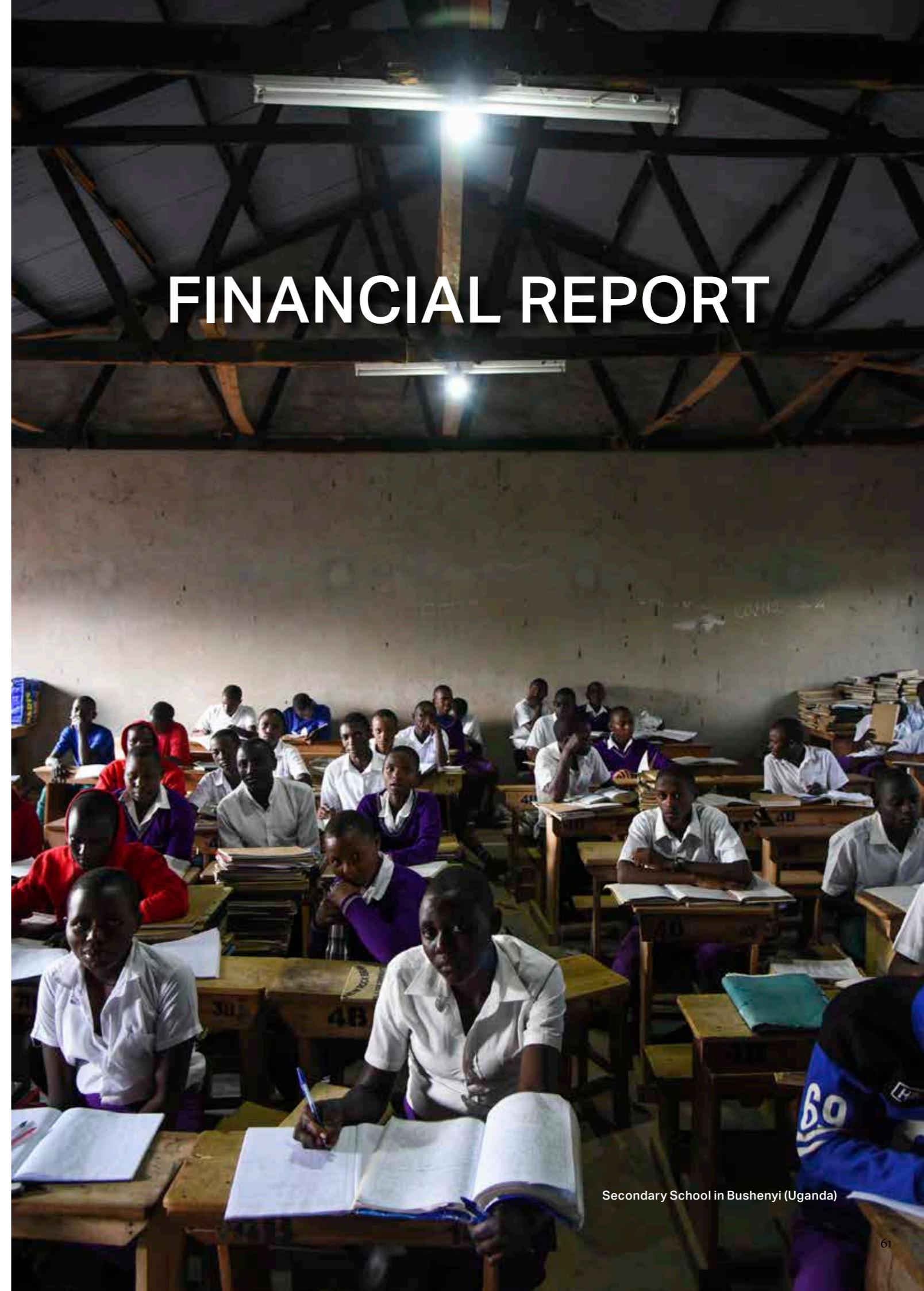
Two presentations were given: on 5 October, FRES' General Director Caroline Nijland gave a presentation about FRES and its business model at Nuon. On 7 November, Tom van Woerkom gave a presentation at Alliander about the findings of his study on network losses in Yeelen Kura.

An English version of the FRES 2016 Annual Report was published digitally in December of 2017. The printed version was published in the beginning of January of 2018.

The FRES Inter Company Staff Exchange Programme led to two exchanges in 2017. One between Yeelen Kura and FRES Uganda, focusing on issues relating to bookkeeping and financial administration, and the second one between Yeelen Kura and Guiné-Bissau focusing on marketing issues.

FRES did not participate in the Transparency Award 2017 because of a delay in the preparation of its 2016 Annual Report. This occurred because FRES Uganda did not submit its annual accounts in time after the accountant discovered discrepancies between 2015 and 2016 which had to be resolved first.

FINANCIAL REPORT



Secondary School in Bushenyi (Uganda)

Annual Accounts 2017

CONSOLIDATED BALANCE AS ON DECEMBER 31, 2017 (after appropriation of results)

	December 31, 2017 €		December 31, 2016 €	
Assets				
1. Fixed Assets				
1.1 Property, plant and equipment	6,008,820		6,612,428	
		6,008,820		6,612,428
2. Current Assets				
2.1 Receivables	1,366,608		1,110,464	
2.2 Inventory	379,619		32,610	
2.3 Securities	5,374,651		5,368,692	
2.4 Cash and cash equivalents	4,569,738		4,437,930	
		11,690,616		10,949,696
Total		17,699,436		17,562,124
Equity and liabilities				
3. Reserves				
3.1 Continuity reserve FRES Netherlands	250,000		250,000	
3.2 Reserve for pre-financing future investments FRES companies	3,000,000		3,000,000	
3.3 Reserve for future projects	12,203,475		11,621,162	
3.4 Reserve financing assets	2,668		1,598	
3.5 Reserve currency difference	94,739-		32,182-	
		15,361,404		14,840,578
4. Funds				
4.1 Fund Donation Nuon	-		85,438	
		-		85,438
5. Current liabilities				
5.1 Payables and other accruals	2,338,032		2,636,108	
		2,338,032		2,636,108
Total		17,699,436		17,562,124

CONSOLIDATED INCOME AND EXPENDITURE STATEMENT 2017

	Actual 2017 €	Budget 2017 €	Actual 2016 €
6. Income			
Income from fundraising	1,955,024	3,663,000	3,269,969
Income from our own fundraising - private persons	8,728	12,000	10,253
Income from our own fundraising - companies	221,541	120,000	231,357
Income from subsidies from governments	1,724,755	3,431,000	3,028,359
Income from other subsidies	-	100,000	-
Income from benefits in return for service	3,206,364	2,550,000	3,313,932
Other income (FRES companies)	3,206,364	2,550,000	3,313,932
Sum of the income	5,161,388	6,213,000	6,583,901
7. Expenses			
Spent on objectives			
Expenses for regular company activities	2,868,427	1,970,000	1,900,187
Yeelen Kura, Mali	647,934	750,000	741,795
NuRa, South Africa	55,996	70,000	15,347
Yeelen Ba, Burkina Faso	481,916	250,000	10,902
FRES Uganda, Uganda	756,427	500,000	770,404
FRES Guiné-Bissau, Guinea-Bissau	926,154	400,000	361,739
Expenses for non regular company activities	-	-	143,998
Yeelen Kura, Mali	-	-	143,998
Expenses for company expansion	2,037,128	3,950,000	2,474,176
Yeelen Kura, Mali	872,676	1,600,000	1,147,844
NuRa, South Africa	-	-	1,884
Yeelen Ba, Burkina Faso	-	-	161,571
FRES Uganda, Uganda	507,453	600,000	260,261
FRES Guiné-Bissau, Guinea-Bissau	631,947	750,000	895,025
FRES Cameroon, Cameroon	25,052	1,000,000	7,591
Expenses for replacements	99,917	345,000	75,921
Expenses Yeelen Kura replacements	6,000	150,000	55,000
Expenses Guiné-Bissau replacements	-	50,000	-
Expenses Uganda replacements	-	70,000	20,921
Expenses Yeelen Ba replacements	93,917	75,000	-
Expenses for new initiatives	2,917	45,000	83,352
New initiatives remaining countries	2,917	45,000	83,352
Subtotal	5,008,389	6,310,000	4,677,634

**CONSOLIDATED INCOME AND EXPENDITURE STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2017 (CONTINUED)**

	Actual 2017 €	Budget 2017 €	Actual 2016 €
Subtotal	5,008,389	6,310,000	4,677,634
FRES service costs spent on objectives	589,515	535,150	376,772
Direct support existing companies	307,136	310,387	212,230
Direct support expansion companies	267,769	221,552	144,883
Direct support new initiatives	14,610	3,211	19,659
Total spent on objectives	5,597,904	6,845,150	5,054,406
FRES service costs management & administration	113,198	159,851	135,547
Direct costs	6,467	43,160	11,485
Indirect costs and costs from investments	106,731	116,691	124,062
Sum of the expenses	5,711,102	7,005,001	5,189,953
Financial income and expenses	180,618	302,000	293,828
Release negative goodwill	867,040	-	-
Result	497,944	490,001-	1,687,776

The budget of 2017 that is stated in the annual account of 2016 included the budget of entities that are not consolidated in the annual accounts. The budget that is stated above excludes the income and expenses from regular company activities of NuRa, South Africa.

	Actual 2017 €	Budget 2017 €	Actual 2016 €
The result of 2017 is appropriated as follows:			
Reserve for future projects	582,312	490,001-	2,350,518
Reserve financing assets	1,070	-	20
Fund donation Nuon	85,438-	-	662,762-
Total	497,944	490,001-	1,687,776

CONSOLIDATED CASH FLOW STATEMENT 2017

	December 31, 2017 €		December 31, 2016 €	
Income from private persons, companies, institutions and governments	5,371,220		6,223,680	
Payments to suppliers, employees and projects	-5,568,419		4,568,963-	
Cash generated from operating activities		197,199-		1,654,717
Received interest, realised result investments and balance deposits and withdrawals investments		180,618		293,828
Cash flow from operational activities		16,581-		1,948,545
Investments in property, plant and equipment	26,952		569,869-	
Consideration paid on acquisition Yeelen Ba	2-		-	
Cash flow from investment activities		26,950		569,869-
Cash flow from financing activities		-		-
Cash flow		10,369		1,378,676
Exchange rate and conversion differences		110,062		38,420
Net cash flow		120,431		1,417,096
Cash as on January 1		4,437,930		3,020,834
Net cash flow		120,431		1,417,096
Cash acquired in acquisition Yeelen Ba		11,377		-
Cash as on December 31		4,569,738		4,437,930

NOTES TO THE CONSOLIDATED ANNUAL ACCOUNTS

General

Activities

FRES was founded in 2004 and is registered at the Chamber of Commerce in Amsterdam (number 34201011). The foundation is located at Amstel 49 in Amsterdam. The activities of FRES and its group companies consist of realising sustainable rural electrification in developing countries, especially through the placement and management of autonomous solar energy systems.

FRES aims to participate in subsidiaries and partnerships that perform activities which benefit the goals of the foundation.

Group structure

In 2017 the group includes five operating companies: Yeelen Kura S.A., FRES Uganda Limited, FRES Guiné-Bissau, Yeelen Ba S.A. and FRES Cameroon. FRES is the 100% owner of these companies.

In 2007 FRES was designated as a ANBI (Public Benefit Organisation). FRES complies with the ANBI requirements and publishes various data on the internet.

Consolidation

Intercompany transactions, intercompany results and intercompany balances among group companies and other consolidated entities are eliminated, insofar as the results were being realised through transactions with third parties outside the group. Unrealised losses on intercompany transactions are also eliminated unless such losses qualify as impairment. Accounting principles of group companies and other consolidated entities have been changed where necessary to align them to the prevailing group accounting policies.

The consolidation includes the financial information of FRES, its group companies and other entities in which it exercises control or where it is responsible for the overall management. Group companies are entities in which FRES exercises direct control based on ownership of more than one half of the voting rights or statutory rules. Potential voting rights that can be directly exercised on the balance sheet date are also taken into account. Within this policy, the companies below are included in the consolidation of FRES:

	Statutory seat	Share in the issued capital
SSD Yeelen Kura S.A.	Mali	100%
FRES Uganda Ltd.	Uganda	100%
SSD FRES Guiné-Bissau	GNB	100%
SSD Yeelen Ba	BF	100%

The participation in Yeelen Kura S.A. was obtained at the end of 2008 and is a 100% subsidiary of FRES since.

FRES Uganda Limited was founded in 2010 as a 100% subsidiary of FRES. FRES Guiné-Bissau S.A. was founded in 2011 as a 100% subsidiary of FRES. Yeelen Ba S.A. is a 100% subsidiary of FRES since the 4th of January 2017. An asset valuation was performed in respect with this acquisition in 2017.

In addition to the aforementioned subsidiaries, FRES has interests in the entities mentioned below. These entities are currently not consolidated as they are, separately and together, of insignificant importance.

	Statutory seat	Share in the issued capital
SSD-FRES Benin S.A.	Benin	100%
FRES Cameroon	Cameroon	100%

SSD-FRES Benin was founded in 2010 as a 100% subsidiary of FRES to be able to lay claim to a concession area and exemption from taxes. No activities have taken place in Benin during 2017.

FRES Cameroon was founded in 2015 as a 100% subsidiary of FRES to be able to lay claim to a concession area and exemption from taxes. In 2016 negotiations with the government of Cameroon were still going on regarding securing the authorisation for operation and exemption from taxes. As a consequence, no operational activities took place in Cameroon. As per 11 April 2017 FRES has decided to halt the process of setting up its operations in Cameroon and to officially withdraw from any application procedure that is pending with the Ministry of Energy and the Rural Electrification Agency. This means that the operations as contemplated in Cameroon under the EU Contract will no longer take place and an amendment of the EU Contract is being processed in 2018.

As FRES is not a shareholder of the company NuRa nor has control over this company. NuRa activities are not consolidated and therefore the balance sheet and the income statement of this company are not included in the annual accounts. Expenses incurred by FRES Netherlands in support of the non consolidated companies are included in the consolidated annual accounts.

Acquisition of group companies

Identifiable assets acquired and liabilities assumed in a business combination are recognised in the consolidated financial statements from the acquisition date, being the moment that control can be exercised over the acquired company. The acquisition price consists of the cash consideration, or equivalent, agreed for acquiring the company plus any

directly attributable expenses. If the acquisition price exceeds the net amount of the fair value of the identifiable assets and liabilities, the excess is capitalised as goodwill under intangible assets. If the acquisition price is lower the difference (i.e. negative goodwill) is disclosed under accruals.

Estimates

In applying the principles and policies for drawing up the financial statements, the board makes different estimates and judgments that may be essential to the amounts disclosed in the financial statements. If it is necessary in order to provide the true and fair view, the nature of these estimates and judgments, including related assumptions, is disclosed in the notes to the relevant financial statement item.

General principles for preparing the consolidated annual accounts

General principles

The annual accounts have been prepared in accordance with the revised Guideline for annual reporting 650 for 'Fundraising organisations', as issued by the Dutch Accounting standards Board and applicable for the financial year starting as of January 1st 2017. The objective of this guideline is to provide insight into the expenses of the organisation and the utilisation of funds in relation to the objectives for which the funds were collected. FRES did not apply for early adoption of the revised Guideline 650. The annual accounts have been presented in Euros.

Functional currency

Items included in the annual accounts of the individual group companies are measured using the currency of the primary economic environment in which the respective group company operates (the functional currency). The consolidated annual accounts are presented in Euros, which is the functional and presentation currency of FRES.

Foreign exchange

Monetary assets and liabilities denominated in foreign currencies are converted into the functional currency at the exchange rate prevailing at the balance sheet date. Foreign currency transactions in the reporting period are converted into the functional currency using the exchange rate prevailing at the dates of the transactions.

Conversion differences on non-monetary assets held at cost are recognised using the exchange rate prevailing at the dates of the transactions.

Assets and liabilities of consolidated subsidiaries with a functional currency different from the presentation currency are converted at the exchange rate prevailing at the balance sheet date. Revenues and expenses are converted at the average

exchange rates during the financial year. Any resulting exchange differences are directly charged to the group equity for translation differences.

Cash flow statement

The cash flow statement has been prepared using the direct method. The cash items disclosed in the cash flow statement consist of cash. Cash flows denominated in foreign currencies have been converted at an average estimated exchange rate following Euro foreign exchange reference rates. Exchange differences affecting cash items are shown separately in the cash flow statement.

Interest paid and received, dividends received and income taxes are included under cash from operating activities. Dividends paid are included as cash used in financing activities.

The purchase consideration paid for the acquired group company is included as cash used in investing activities insofar as it was settled in cash.

Principles for the valuation of assets and liabilities

Prior-year comparison

The accounting policies have been consistently applied to all the years presented. During the year 2017 and up to the date of this annual report there were no policy changes.

Property, plant and equipment

Property, plant and equipment are stated at historical cost, minus cumulative depreciation and, if applicable, impairment losses. Depreciation is based on the estimated useful lives of tangible fixed assets, and is calculated based on a fixed percentage of the historical cost, taking into account the possible residual value. Depreciation occurs from the tangible fixed assets' moment of implementation.

Investment subsidies are deducted from the historical cost or manufacturing price of the assets to which the subsidies relate. No provision for major repairs to buildings has been formed for future repairs. When they occur, the costs of repair will be included in the results.

Financial assets

The issued loans to subsidiaries and other receivables are initially measured at fair value, and subsequently valued at amortised cost, which equals the nominal value, minus impairment losses.

Impairment of fixed assets

At each balance sheet date, the foundation tests whether there are any indications of assets being subject to impairment. If any such indications exist, the recoverable amount of the

asset is determined. If this proves to be impossible, the recoverable amount of the cash generating unit to which the asset belongs is identified. An asset is subject to impairment if its carrying amount exceeds its recoverable amount; the recoverable amount is the highest of an asset's actual value minus costs to sell and working value.

Receivables

Receivables are initially included at fair value and subsequently measured at amortised cost, which equals the nominal value, minus a provision for impairment for receivables. The provision is determined based on the individual evaluation of the receivables.

Securities

Securities that are held for trading are valued at fair value in the initial processing. Changes in the actual value are recognised directly in the profit and loss account. Bought, interest-bearing bonds that will be held to maturity are valued at amortised cost.

Transaction costs are included in the income statement if they are related to securities, which were carried at actual value, are processed directly in the profit and loss account.

Cash and cash equivalents

Cash and cash equivalents are stated at nominal value and are at free disposal of the foundation, unless stated otherwise.

Reserves and funds

The reserve financing asset matches the property, plant and equipment of FRES Netherlands. For a more detailed disclosure of the reserves and funds, we refer to the notes on equity.

Negative goodwill

Negative goodwill resulting from acquisitions and calculated in accordance with section "Acquisition of group companies" is released in the income statement based on the weighted average of the remaining life of the acquired amortisable assets. Insofar as the negative goodwill exceeds the fair value of the non-monetary assets identified, the surplus is recognised directly in the income statement.

Other assets and/or liabilities

The remaining assets and liabilities are valued at amortised cost, which is usually equal to the nominal value.

Principles for result determination

Result

Profit or loss is determined by income from our own fundraising activities and other income, minus the incurred expenses on the objectives. Donations are accounted for in the year in which these were received. Proceeds from inheritances are recognised in the year in which the size is reliably determined.

Operating expenses for which a contribution in kind is received are accounted for in gross if and insofar as they can be quantified.

Subsidies

Operating subsidies are recorded as income in the income statement in the year in which the subsidized costs were incurred or income was lost or when there was a subsidized operation deficit. Income is recognized when it is probable that it will be received.

Subsidies related to investments in tangible fixed assets are deducted from the asset to which they relate and recorded in the income statement as part of the amortization costs.

Exchange differences

Exchange differences arising upon the settlement or conversion of monetary items are processed in the income statement in the period that they occur, unless they are hedged.

Depreciation of property, plant and equipment

Property, plant and equipment are depreciated over their estimated useful lives as from the inception of their use. Land is not depreciated.

Financial income and expenses

Interest paid and received is processed on a time-weighted basis, taking account of the effective interest rate of the assets and liabilities concerned. When processing the paid interest, the transaction costs on loans received as part of the calculation of effective interest are taken into account.

Dividends receivable from associates not carried at net asset value and securities are recognised as soon as FRES acquires the right to them.

Taxes

The foundation is not obliged to pay company tax or turnover tax as reiterated in 2017 by the tax authorities. The foundation obtained and has maintained the ANBI status since 2007.

NOTES TO THE CONSOLIDATED BALANCE SHEET ITEMS

1.1 Property, plant and equipment

	Installations and materials FRES Guiné-Bissau	Installations and materials FRES Uganda	Land and buildings Yeelen Kura	Installations and materials Yeelen Kura	Installations and materials Yeelen Ba	Computers, software and office equipment	Total
Historical cost	-	2,505,354	503,220	8,780,404	-	22,854	-
Accumulated depreciation and impairments	-	947,401	125,518	4,105,229	-	21,256	-
Balance as on 1/1/2017	-	1,557,953	377,702	4,675,175	-	1,598	6,612,428
Movements							
Acquired Yeelen Ba	-	-	-	-	1,123,306	-	1,123,306
Accumulated depreciation Yeelen Ba (historical)	-	-	-	-	825,183	-	825,183
Investments/disposal	-	365,741	-	499,554	104,629	2,232	26,952
Exchange differences	-	172,618	-	-	-	-	172,618
Depreciation	-	306,647	19,890	222,092	152,370	1,162	702,161
Total movements	-	113,524	19,890	721,646	250,382	1,070	603,608
Historical cost	-	2,698,477	503,220	8,280,850	1,227,935	25,086	11,507,633
Accumulated depreciation and impairments	-	1,254,048	145,408	4,327,321	977,553	22,418	5,749,195
Balance as on 31/12/2017	-	1,444,429	357,812	3,953,529	250,382	2,668	6,008,820

Depreciation percentage	10%-33%	10%-33,3%	4-20%	10%-33,3%	10%-33,3%	20%
Motor vehicle						
Motor cycles		20		20	20	
Computer and accessories		33		20	20	20
Furniture and fittings		25		7	7	
Land and buildings		10		20	20	
Solar panels			4			
Solar regulators		5		5	5	
Solar batteries		10		10	10	
		33		33	33	

The investments during 2017 mainly consist of the acquisition of solar home systems.

The installations and materials of FRES Guiné-Bissau are fully compensated by received grants and subsidies. Therefore, the historical cost is nil.

1.2 Acquisition Yeelen Ba

As per January 4th 2017, FRES acquired 100% of the shares of SSD-Yeelen Ba. Yeelen Ba supplies electricity by installing SHS in households and small businesses and is active in the province Kéné Dougou, Burkina Faso, an area with over 300,000 inhabitants.

In previous years, FRES was already managing the operational activities of Yeelen Ba. However, as FRES was not a shareholder of Yeelen Ba nor had FRES any control over the company, Yeelen Ba was not part of the consolidation in previous years. Therefore, the balance sheet and the income statement of Yeelen Ba are not included in the comparative figures 2016.

The acquisition had the following effect on the Group's assets and liabilities:

Balance sheet items (pro forma figures)	Carrying amounts at first-time consolidation
Plant, property & equipment	298,123
Receivables	471,935
Inventory	357,718
Cash and cash equivalents	11,377
Payables and other accruals	73,364
Total net identifiable assets and liabilities	1,065,789
Consideration transferred	2
Negative goodwill on acquisition	1,065,787
Negative goodwill in excess of the fair value of the non-monetary assets identified on acquisition; recognized directly in income statement	767,664
Negative goodwill recognized as Other accruals on acquisition and released in income statement in 3 years	298,123
Total release of negative goodwill in income statement in 2017	867,040
Negative goodwill recognized as Other accrual as per 31 December 2017	198,747

Since its first-time consolidation, Yeelen Ba has contributed € 366,647 to the Group's revenue and € 81,355 negative to the Group's net income in the year 2017.

2.1 Receivables	31/12/17 Total	> 1 year	31/12/16 Total	> 1 year
Receivables Yeelen Kura	371,389		308,658	
Receivables FRES Uganda	235,068		201,851	
Receivables FRES Guiné-Bissau	110,605		334,605	
Receivables Yeelen Ba	165,408		-	
Prepayments FRES	3,203		73,448	
Prepayments FRES Uganda	2,405		5,012	
Prepayments FRES Guiné-Bissau	22,138		-	
Other receivables and accrued income FRES	16,387		52,814	
Other receivables and accrued income Yeelen Kura	65,196		10,178	
Other receivables and accrued income Uganda	7,379		1,684	
Other receivables and accrued income FRES Guiné-Bissau	6,509		122,214	
Other receivables and accrued income Yeelen Ba	360,921	-	-	-
Total	1,366,608		1,110,464	

The fair value of the receivables approaches their book value, given the short-term character and the fact that provisions for recoverability have been established where necessary.

The receivables of the FRES companies are from regular company activities such as debtors and other receivables.

2.2 Securities

	2017	2016
Shares	2,810,087	2,833,548
Bonds	2,541,165	2,512,688
Increased coupon interest bonds	23,399	22,456
Total	5,374,651	5,368,692

All the securities mentioned above are quoted and are freely available to the foundation.

The investment activities are executed by ING and monitored by the FRES Board. FRES and ING agreed upon a defensive investment profile. This profile also excludes activities connected to alcohol, fur, gambling, nuclear industries, child labour, pornography, tobacco, weapons, or environmental misconduct, (social) laws / codes and human rights.

The return on the securities amounted to 3.6% in 2017 (5.9% in 2016). The FRES Board evaluated the investment policy in 2017 and decided not to make any changes to the existing investment policy.

2.3 Cash and cash equivalents

	2017	2016
ING Bank	110,435	107,907
ING Bank, investment	183,785	5,762
ING Bank, savings	4,101,842	4,008,804
ASN Bank	-	493
Bank credits Yeelen Kura	60,756	200,951
Bank credits FRES Uganda	15,616	15,122
Bank credits FRES GNB	76,394	96,897
Bank credits Yeelen Ba	20,747	-
Cash	164	1,994
Total	4,569,739	4,437,930

The amount of ING Bank saving account includes a guarantee of € 1,036,927 for a project and is therefore not freely available. The increase in 2017 (€ 131.871) in comparison to 2016 is amongst others due to transfers from the operational account of advanced payments that FRES has received from donors (EU / EEP and OFID) for the running projects. This cash and other cash equivalents are freely available and being utilised for the operational activities and the objectives of FRES.

3. NOTES TO THE RESERVES AND FUNDS

3. Reserves

3.1 Continuity reserve FRES Netherlands

This continuity reserve is intended to cover cost of laying-off people, office costs, delayed payments. Additions are taken into account when necessary and are submitted for approval to the Supervisory Board. With this reserve, it is possible to shoulder the non-variable part of the expenses of FRES Netherlands for a period of six months.

	2017	2016
Balance as on Jan 1	250,000	250,000
Appropriation of results	-	-
Balance as on Dec 31	250,000	250,000

3.2 Reserve for pre-financing future investments FRES Companies

This reserve is intended to ensure that FRES maintains a minimum reserve of own funds that can be used to pre-finance new, future investments, when awaiting first payments by the sponsors. It will only be used for projects where there are signed agreements with sponsors.

	2017	2016
Balance as on Jan 1	3,000,000	3,000,000
Appropriation of results	-	-
Balance as on Dec 31	3,000,000	3,000,000

3.3 Reserve for future projects

This reserve is based on appropriation of results and is for the benefit of new projects that have not yet been planned and committed.

	2017	2016
Balance as on Jan 1	11,621,162	9,270,644
Appropriation of results	582,312	2,350,518
Balance as on Dec 31	12,203,474	11,621,162

3.4 Reserve financing assets

This reserve is based on the Guideline for annual reporting 650 for 'Fundraising organisations' and equals the total book value of the property, plant and equipment of FRES Netherlands. Because this guideline is not applicable to Yeelen Kura, FRES Uganda, Yeelen Ba and FRES Guiné-Bissau, the amount of tangible fixed assets of these companies has not been included in the reserve.

	2017	2016
Balance as on Jan 1	1,598	1,578
Appropriation of results	1,070	20
Balance as on Dec 31	2,668	1,598

3.5 Currency difference

	2017	2016
Balance as on Jan 1	32,182-	26,921-
Currency changes UGX	62,558-	5,261-
Balance as on Dec 31	94,740-	32,182-

This currency difference relates to the exchange differences between Uganda's shillings (UGX) and euro.

4. FUNDS

4.1 Funds Donation Nuon

This fund relates to the part of the original donation of € 10,000,000 by N.V. Nuon Energy in 2008 that has not yet been invested.

	2017	2016
Balance as on Jan 1	85,438	748,200
Appropriation of results	85,438-	662,762-
Balance as on Dec 31	-	85,438

5. PAYABLES AND OTHER ACCRUALS

All payables and other accruals mentioned below fall due in less than one year. The fair value of the payables and other accruals approximates the book value due to their short-term character. The financial obligations towards FRES companies are funds that FRES holds for FRES Companies to pay for future replacement investments.

	2017	2016
Creditors FRES NL	18,983	17,913
Other payables:		
Yeelen Kura	1,592,868	2,055,257
FRES Uganda	266,611	383,967
FRES Guinea-Bissau	15,060	116,151
Yeelen Ba	162,675	-
FRES	83,088	62,819
Negative goodwill:		
Yeelen Ba	198,747	-
Total	2,338,032	2,636,107

COMMITMENTS AND CONTINGENCIES NOT INCLUDED IN THE BALANCE SHEET

There is an annual rent obligation for Amstel 49 in Amsterdam at the amount of € 15,600. The rental agreement has been terminated in consultation with the landlord. FRES will relocate during the second half of 2018.

NOTES TO THE CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE

General

The donations relate to income from own fundraising activities.

Continuity of the activities

In 2017, new SHS systems were purchased and put into operation namely in Fres Uganda, Yeelen Kura and Fres Guinée-Bissau. Furthermore, in the second quarter of 2017 FRES Guinea-Bissau invested in a solar mini-grid became operational in Contuboel. Excluding NuRa, which figures are not consolidated, the customer base increased by 9%, from 19,134 in 2016 to 20,857 in 2017.

6. INCOME AND EXPENSES

6.1 Income

Income from own fundraising – private persons

	2017	2016
Donation Christmas gift employees Nuon	6,965	6,956
Private donations	1,763	3,297
Total	8,728	10,253

Income from own fundraising - companies

The donations from companies can be specified as follows:

	2017	2016
Payroll costs Alliander for Director Business Dev.	120,000	130,470
Alliander office expenses	80,000	80,000
Nuon savings campaign	5,541	10,887
Other donations	16,000	10,000
Total	221,541	231,357

Subsidies from governments (Project financing)

	2017	2016
EU Regional	1,408,559	2,581,367
EEP Uganda	139,533	310,467
OFID Guinea-Bissau	176,663	136,525
Total	1,724,755	3,028,359

Specification from the EU Regional subsidy (Project financing)

	2017	2016
EU Regional Mali	478,910	877,665
EU Regional Uganda	366,225	671,155
EU Regional GNB	211,284	387,205
EU Regional Cameroon	352,140	645,342
Total	1,408,559	2,581,367

Other income

	2017	2016
Yeelen Kura ¹	1,403,945	1,739,719
Yeelen Kura ²	-	246,777
FRES Uganda ¹	827,180	564,539
FRES Guinea-Bissau ¹	608,353	762,897
FRES Yeelen Ba ¹	366,886	-
Total	3,206,364	3,313,932

¹Regular company activities

²Non-regular company activities

Percentages spent on objectives

In accordance with the Guideline for annual reporting 650 for 'Fundraising Organisations' of the Dutch Foundation for Annual Reporting, the clarification below states several percentages.

Percentage of expenditures spent on objectives

This percentage is calculated as follows: the total of the expenses spent on the objectives divided by the sum of the expenditures. The percentage of expenditures spent on objectives amounted to 98% in 2017 (2016: 97%). The percentage of expenditures spent on management and administration therefore amounts to 2%. The percentage relating to overhead costs is low because many volunteers including board members and commissioners execute their activities on a pro bono basis.

Percentage of income spent on objectives

This percentage is calculated as follows: the total of the expenses spent on the objectives divided by the income, received in 2017. These incomes do not include transfers from reserves that were spent on activities in 2017. The percentage of income spent on objectives amounted to 113% for 2017 (2016: 74%) because revenues much lower than in 2017 because much less EU subsidies were received in 2017.

Financial income and expenses

	2017	2016
Interest bank	32,317-	34,882-
Result interest bonds	943	6,411-
Dividends	100,090	103,241
Realised gains/losses shares and bonds	27,440-	5,572-
Unrealised gains/losses shares	139,419	185,297
Unrealised gains/losses bonds	77-	52,155
Total	180,618	293,828

The net return on investments in securities and cash equivalents has been accounted for under the financial income and expenses. The above-mentioned return of € 180,618 also included an amount of € -27,440 realised results on the investments.

Cash equivalents were kept on the current account and deposit account at credit institutions with at least an "A" credit rating.

Loans

FRES Netherlands issued several loans to FRES companies. These loans were recognised as expenses spent on objectives. The principal amount of the issued loans by FRES Netherlands is indicated below:

	2017
Total	9,511,004

Employees

The number of FTEs as of December 31st 2017 was 4 FTE (2016: 4.8 FTE). Including one freelancer who worked for FRES the number of FTEs amounted to 4.6 FTEs on December 31st 2017 (2016: 5.8 FTE).

Remuneration Board members

The remuneration of the Supervisory Board members and FRES Board members amounted to € 0 in 2017 (2016: € 0). No loans, advances or guarantees were issued to Board members. No employment contract exists between FRES and the Board members.

FOUNDATION'S BALANCE SHEET AS AT DECEMBER 31, 2017
(after appropriation of results)

	December 31, 2017		December 31, 2016	
	€		€	
Assets				
1. Non-current Assets				
1.1 Property, plant and equipment	2,668		1,598	
1.2 Financial assets	6,772,372		5,931,362	
		6,775,040		5,932,960
2. Current Assets				
2.1 Receivables	19,590		126,262	
2.2 Securities	5,374,651		5,368,692	
2.3 Cash and cash equivalents	4,396,226		4,124,960	
		9,790,467		9,619,914
Total		16,565,507		15,552,874
2. Reserves				
3.1 Continuity reserve FRES Netherlands	250,000		250,000	
3.2 Reserve for pre-financing future investments FRES Companies	3,000,000		3,000,000	
3.3 Reserve for future projects	12,203,474		11,621,161	
3.4 Reserve financing assets	2,668		1,598	
3.5 Reserve currency difference	-32,183		-32,183	
		15,423,959		14,840,576
4. Funds				
4.1 Fund Donation Nuon	-		85,438	
		-		85,438
5. Current liabilities				
5.1 Payables and other accruals		1,141,550		626,860
Total		16,565,507		15,552,874

NOTES TO THE BALANCE SHEET AND STATEMENT OF INCOME AND EXPENDITURE

General principles

The foundation's stand-alone annual accounts have been prepared in accordance with the revised Guideline for annual reporting 650 for 'Fundraising Organisations', as issued by the Dutch Foundation for Annual Reporting and applicable as of January 1st 2017. The objective of this guideline is to provide insight into the expenses of the organisation and the utilisation of funds in relation to the objectives for which the funds were collected. The annual accounts are presented in Euros.

The principles of valuation and result determination for the foundation's stand-alone annual accounts and the consolidated annual accounts are the same.

For the principles of the valuation of assets and liabilities and the result determination, we would like to refer to the notes on the consolidated balance sheet and income statement on page 62 to page 69.

Financial assets

Subsidiaries

Group companies, in which FRES exercises significant influence, generally accompanying an ownership of 20% or more of the voting rights, are stated at net asset value.

Subsidiaries with an equity deficit are valued at nil. A provision is included when FRES is fully or partially liable for the debts of the subsidiary, or has the firm intention to enable the subsidiary to pay its debts.

FOUNDATION'S INCOME AND EXPENDITURE STATEMENT 2017

6. Income

Income from private persons
Income from companies
Income from subsidies

Sum of the income

7. Expenses

Spent on objectives (consolidated budget)

FRES service costs spent on objectives

Direct support existing companies
Direct support company expansions
Direct support new initiatives

Fres service costs management & administration

Direct costs
Indirect costs and costs from investments

Sum of the expenses

Subtotal

Financial income

Result subsidiaries

Result subsidiary Yeelen Kura
Result subsidiary FRES Uganda
Result subsidiary FRES Guiné-Bissau
Result subsidiary Yeelen Ba
Release negative goodwill Yeelen Ba

Result

	Actual 2017	Budget 2017	Actual 2016
	€	€	€
6. Income			
Income from private persons	8,728	12,000	10,253
Income from companies	221,541	120,000	231,056
Income from subsidies	1,724,755	3,431,000	3,028,559
Sum of the income	1,955,024	3,563,000	3,269,868
7. Expenses			
Spent on objectives (consolidated budget)	1,579,975	6,310,000	1,622,161
FRES service costs spent on objectives			
Direct support existing companies	307,136	310,387	212,230
Direct support company expansions	267,769	221,552	144,883
Direct support new initiatives	14,610	3,211	19,659
Fres service costs management & administration			
Direct costs	6,467	43,160	11,485
Indirect costs and costs from investments	106,731	116,691	124,062
Sum of the expenses	2,282,688	7,005,001	2,134,480
Subtotal	327,664-	3,442,001-	1,135,388
Financial income	183,347	302,000	291,028
Result subsidiaries			
Result subsidiary Yeelen Kura	3,010	-	350,359
Result subsidiary FRES Uganda	90,306	-	359,707-
Result subsidiary FRES Guiné-Bissau	236,979-	-	270,607
Result subsidiary Yeelen Ba	81,116-		
Release negative goodwill Yeelen Ba	867,040		
Result	497,944	3,140,001-	1,687,675

NOTES TO THE BALANCE SHEET ITEMS

Financial assets

The movement of the investments in subsidiaries is as follows:

	2017	2016
Balance as on Jan 1	5,931,362	5,424,018
Capital expenditure	-	251,342
Aquisition of Yeelen Ba	1,065,789	-
Currency difference	-	5,257-
Result subsidiaries	224,779-	261,259
Balance as on Dec 31	6,772,372	5,931,362

Other notes to the foundation's balance sheet

For the other notes, we refer to the notes on the consolidated balance sheet items 2017.

NOTES ON THE STATEMENT OF INCOME AND EXPENDITURE

Other income

For the other notes to the statement of income and expenditure, we refer to the notes on the consolidated income statement 2017.

NOTES ON THE STATEMENT OF INCOME AND EXPENDITURE

Expenses

Spent on objectives

Destination	Objective Existing companies				Expansion companies		
	Yeelen Kura, Mali	NuRa, South Africa	Yeelen Ba, Burkina Faso	FRES Guinée-Bissau	FRES Uganda	Yeelen Kura, Mali	NuRa, South Africa
Expenditures							
Subsidies and contributions	41,023	55,996	33,914	80,822	20,633	86,301	-
Remittances							
Purchases and acquisitions							
Outsourced work							
Publicity and communication	1,336	2,817	1,867	1,760	2,251	3,817	649
Personnel expenses	29,156	61,457	40,738	38,395	49,106	83,283	14,159
Accommodation expenses	2,365	4,985	3,305	3,114	3,983	6,756	1,149
Office and general expenses	2,016	4,249	2,817	2,655	3,395	5,758	979
Depreciation and interest	335-	705-	468-	441-	564-	956-	163-
Total	75,561	128,799	82,173	126,305	78,805	184,959	16,773
	3,5%	5,9%	3,8%	5,8%	3,6%	8,5%	0,8%

Yeelen Ba, Burkina Faso	FRES Guinée-Bissau	FRES Uganda	Cameroon	New initiatives	Mgmt. and admin.	Total 2016	Budgeted 2016	Total 2016
93,917	631,947	507,453	25,052	2,917	1,579,975	6,310,000	1,622,161	
					-	-	-	
					-	-	-	
					-	-	-	
485	2,912	882	255	-	3,654	22,685	26,057	34,620
10,577	63,533	19,247	5,556	-	80,660	495,868	569,578	410,987
858	5,154	1,561	451	-	6,467	40,147	46,115	43,409
731	4,393	1,331	384	-	23,332	52,041	59,777	39,037
121-	729-	221-	64-	-	915-	5,681-	(6,525)	15,734-
106,447	707,209	530,254	31,634	2,917	113,198	2,185,033	7,005,001	2,134,478
4,9%	32,4%	24,3%	1,4%	0,1%	5,2%	100%		

The subsidies and contributions actuals of € 1,579,975 represent the costs made by FRES NL whereas the budget of € 6,310,000 represent the consolidated costs including an amount of € 1,970,000 from operating companies.

The expenses for publicity and communication were lower (approx Eur 12 000) than in 2016 due to cost containment. The allocation of the expenses to the direct activities, as presented in the consolidated income statement, result from an internal time allocation system.

The expenses for fundraising amounted to a total of € 3,220 in 2017. At FRES, the expenses for fundraising mainly consist of the costs that are made for attracting new funds such as travelling costs, participation in conferences and seminars including the partially salary of the business developers.

Post Balance Sheet Events

The Minister of Energy in Mali has announced in 2017 that Yeelen Kura needs to transfer mini-grids of 5 villages to EDM, the national operator. FRES has performed an asset valuation

report and is currently negotiating further financial details and the timeline of the transfers. As Yeelen Kura will be reimbursed for the net book value of the assets and any other losses associated with the transfer, no impairment and/or provision was recognised in 2017.

Proposed appropriation of results 2017

The board proposes to appropriate the results 2017 amounting to €497,944 as follows:

	Appropriation of results 2017
Addition to:	
Reserve for future projects	582,312
Addition to:	
Reserve financing assets	1,070
Withdrawal from:	
Fund donation Nuon	85,438-
Total	497,944

Amsterdam, 7 June 2018

Board FRES

Annemarie Goedmakers
Paul Gaalman
Joop Lasseur

Supervisory Board FRES

Peter Smink
Wim Sinke
Paul Hol

OTHER INFORMATION

Statutory arrangement concerning the appropriation of results

No provision regarding the appropriation of results has been included in the Articles of Association.

Adoption and approval of the annual accounts 2017

The annual accounts 2017 were adopted in a Board meeting held on 7 June 2018, and were approved by the Supervisory Board on 7 June 2018.

Changes in the Supervisory Board

Paul Hol was appointed 26 January 2017 as new member of the Supervisory Board.

Independent auditor's report

To: the board and supervisory board of Stichting Rural Energy Services

REPORT ON THE ANNUAL ACCOUNTS 2017

Our opinion

In our opinion, Stichting Rural Energy Services's annual accounts give a true and fair view of the financial position of the Foundation and the Group as at 31 December 2017, and of its result for the year then ended in accordance with the Guideline for annual reporting 650 'Charity organisations' of the Dutch Accounting Standards Board.

What we have audited

We have audited the accompanying annual accounts 2017 of Stichting Rural Energy Services, Amsterdam ('the Foundation'). The annual accounts include the consolidated annual accounts of Stichting Rural Energy Services and its subsidiaries (together: 'the Group') and the foundation's annual accounts. The annual accounts comprise:

- the consolidated and foundation's balance sheet as at 31 December 2017;
- the consolidated and foundation's income and expenditure statement for the year then ended;
- the consolidated cash flow statement; and
- the notes, comprising a summary of the accounting policies and other explanatory information.

The financial reporting framework that has been applied in the preparation of the annual accounts is the Guideline for annual reporting 650 'Charity organisations' of the Dutch Accounting Standards Board.

The basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the section 'Our responsibilities for the audit of the annual accounts' of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of Stichting Rural Energy Services in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten' (ViO – Code

of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence requirements in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA – Code of Ethics for Professional Accountants, a regulation with respect to rules of professional conduct).

REPORT ON THE OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

In addition to the annual accounts and our auditor's report thereon, the annual report contains other information that consists of the board report. Based on the procedures performed as set out below, we conclude that the other information:

- is consistent with the annual accounts and does not contain material misstatements;
- contains the information that is required by the Guideline for annual reporting 650 'Charity organisations' of the Dutch Accounting Standards Board.

We have read the other information. Based on our knowledge and understanding obtained in our audit of the annual accounts or otherwise, we have considered whether the other information contains material misstatements.

By performing our procedures, we comply with the requirements of the Dutch Standard 720. The scope of such procedures was substantially less than the scope of those performed in our audit of the annual accounts.

The board is responsible for the preparation of the other information, including the directors' report pursuant to the Guideline for annual reporting 650 'Charity organisations' of the Dutch Accounting Standards Board.

RESPONSIBILITIES FOR THE ANNUAL ACCOUNTS AND THE AUDIT

Responsibilities of the board and the supervisory board for the annual accounts

The board is responsible for:

- the preparation and fair presentation of the annual accounts in accordance with the Guideline for annual reporting 650 'Charity organisations' of the Dutch Accounting Standards Board; and for

- such internal control as the board determines is necessary to enable the preparation of the annual accounts that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the annual accounts, the board is responsible for assessing the foundation's ability to continue as a going concern. Based on the financial reporting framework mentioned, the board should prepare the annual accounts using the going-concern basis of accounting unless the board either intends to liquidate the foundation or to cease operations, or has no realistic alternative but to do so. The board should disclose events and circumstances that may cast significant doubt on the foundation's ability to continue as a going concern in the annual accounts.

The supervisory board is responsible for overseeing the foundation's financial reporting process.

Our responsibilities for the audit of the annual accounts

Our responsibility is to plan and perform an audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence to provide a basis for our opinion. Our audit opinion aims to provide reasonable assurance about whether the annual accounts are free from material misstatement. Reasonable assurance is a high but not absolute level of assurance which makes it possible that we may not detect all misstatements. Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the annual accounts.

Materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A more detailed description of our responsibilities is set out in the appendix to our report.

Utrecht, 7 June 2018

PricewaterhouseCoopers Accountants N.V.

Original has been signed by: K. Hofstede RA

APPENDIX TO OUR AUDITOR'S REPORT ON THE ANNUAL ACCOUNTS 2017 OF STICHTING RURAL ENERGY SERVICES

In addition to what is included in our auditor's report we have further set out in this appendix our responsibilities for the audit of the annual accounts and explained what an audit involves.

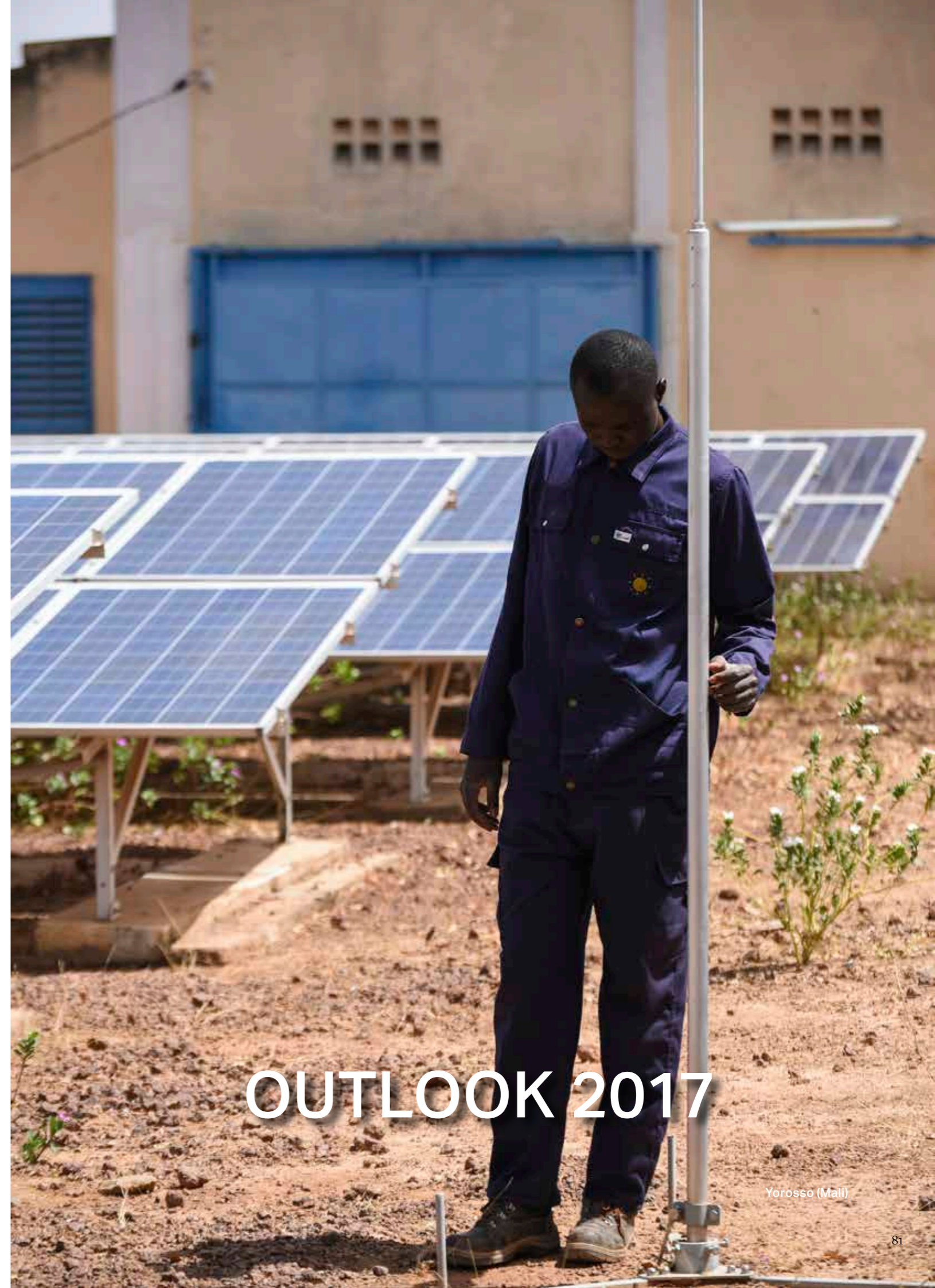
The auditor's responsibilities for the audit of the annual accounts

We have exercised professional judgement and have maintained professional scepticism throughout the audit in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our objectives are to obtain reasonable assurance about whether the annual accounts as a whole are free from material misstatement, whether due to fraud or error. Our audit consisted, among other things of the following:

- Identifying and assessing the risks of material misstatement of the annual accounts, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the intentional override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the foundation's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the board.
- Concluding on the appropriateness of the board's use of the going concern basis of accounting, and based on the audit evidence obtained, concluding whether a material uncertainty exists related to events and/or conditions that may cast significant doubt on the foundation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the annual accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report and are made in the context of our opinion on the annual accounts as a whole. However, future events or conditions may cause the foundation to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the annual accounts, including the disclosures, and evaluating whether the annual accounts represent the underlying transactions and events in a manner that achieves fair presentation.

Considering our ultimate responsibility for the opinion on the company's consolidated annual accounts we are responsible for the direction, supervision and performance of the group audit. In this context, we have determined the nature and extent of the audit procedures for components of the group to ensure that we performed enough work to be able to give an opinion on the annual accounts as a whole. Determining factors are the geographic structure of the group, the significance and/or risk profile of group entities or activities, the accounting processes and controls, and the industry in which the group operates. On this basis, we selected group entities for which an audit or review of financial information or specific balances was considered necessary.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



OUTLOOK 2017

Yorosso (Mali)

Outlook FRES companies

FRES companies have a long-term business horizon and their goal is to become financially sustainable. Operational excellence programmes will lay a solid foundation for cost-effective and financially sustainable operations. By the end of 2017, FRES had ongoing contracts with donors to expand at least three of its companies in 2018. FRES Guiné-Bissau, Yeelen Kura, and FRES Uganda will connect 1,600 new customers in 2018. Yeelen Ba and Nura will have to focus on increasing customer retention and the redeployment of SHS parts.

In line with the Business Plan 2018-2022, all FRES companies will strive to:

- Improve payment rates and reduce operational costs without compromising quality;
- Improve customer retention;
- Improve solar system maintenance procedures, transport logistics and customer service;
- Improve marketing; manage customer growth with a focus on customer retention without compromising existing operations;
- Evaluate and implement successfully tested, technological developments as they come on the market, in particular those involving battery technology, SHS pre-payment systems and mobile payment.

Yeelen Kura in Mali

In 2018 Yeelen Kura will expand its customer base with 300 new customers in line with contracted agreements. The company hopes to be able to convince the government of Mali that the nationalisation of the five solar mini-grids will not endanger the future of Yeelen Kura and will help to replace lost customers by potential new ones. A major focal point will be to improve batteries' lifetime.

FRES Guiné-Bissau

FRES Guiné-Bissau will strengthen its internal organisation. The company will attain higher payment rates by exploring new fee collection methods, remote switching and pre-payment technologies such as those being practised in a pilot in Mali. In 2018, FRES Guiné-Bissau will expand its mini-grid customer base with at least 187 new customers and its SHS customer base with 350 new customers, in line with contracted agreements.

NuRa in South Africa

For 2018 NuRa has to shift from growth to operational excellence. Respecting internal procedures, performing regular internal control, and mapping grid connections encroaching the concession area are essential. It aims to develop a new business approach for grid customers still needing NuRa's services.

FRES Uganda

FRES Uganda will implement improved marketing strategies to increase its scale of operations (percentage of the population in the concession area that is customer) to the level of other FREScos. It will implement mobile payment in a pilot among 250 customers. In 2018, the customer base will be expanded by at least 771 new customers, in line with contracted agreements.

Yeelen Ba in Burkina Faso

Yeelen Ba will enhance its performance at fixed customer base of 3,500 while improving payment rates and reducing costs. A focal point will be to strengthen management and improve fee collection and marketing. Yeelen Ba will continue to pursue funding for expansion opportunities between 2018-2022.

New initiatives

Proven technologies that can facilitate service fee collection (e.g. remote switching, mobile payments, pre-payment meters) remain a high priority for FRES. We will select the best service provider for mobile payments in each of the FRES companies. In 2017, a pilot with 100 units of remotely controlled switching systems, using the so-called 'Cobrador', took place in Mali and Guinea-Bissau. Pilot evaluations led to the conclusion that further testing is needed which should take place over the course of 2018.

The results of the battery regeneration pilot in Mali, which was concluded in 2017, will be analysed to assess life-extension opportunities for the existing mini-grid batteries. FRES will contact companies that specialise in this new battery technology. The idea of the pilot was to assess the applicability of such new technologies under the circumstances in which the FRES companies operate with the goal to reduce battery lifecycle cost. FRES may form partnerships with specialised companies to reach this goal.

Outlook FRES Corporate

Focus

FRES NL will strengthen its support and guidance of its companies in order to improve their operational performance, thus strengthening the basis for sound expansion over the coming years.

Organisation

In 2017 FRES began to set up and pilot a structured administration database that meets FRES reporting requirements. The system, which relies on data management through cloud computing, is aimed at making intercompany administration processes more efficient and cost effective. The intention is to facilitate data import from all FRES companies and automatically store it in accordance with FRES' reporting structure. This will enable more efficiency in the management of data for reporting.

Technology

FRES will identify and start pilots with promising (technical and non-technical) solutions that have the potential to reduce the lifecycle cost of SHS. The priority will be to find solutions that reduce the financial burden of battery replacement for our companies, but we will also focus on mobile payment and other technologies that can potentially reduce operating and maintenance costs, such as remotely controlled switching systems.

Risk management

Fraud is a risk to the financial health and reputation of the FRES companies that demands a high state of alertness and immediate intervention when it occurs. In 2017, an anti-fraud policy with related measures was developed which will be implemented by all FRES companies in 2018.

HSE performance is a risk to the wellbeing of people and the reputation of FRES companies and requires continuous attention

Pre-financing large sums, at times for very long periods, is a risk to FRES. It is required for the high upfront costs for investing in solar expansion and the disbursement practices of donors. We have turned the risk into an advantage by creating a reserve fund for supporting the growth of young FRES companies and providing the necessary pre-financing for donor/government investments.

Fundraising

Governments and international development agencies remain important stakeholders because they provide FRES with the essential flow of additional financing needed for customer growth. We will apply for those subsidy tenders that are in line with our strategy to acquire € 1.3 million in new subsidies as of 2019. We aim to expand the number of partnerships in the private sector.

Our customer growth targets are and will be dictated by the contracted sums. The private sector is a very valued stakeholder that provides us both with cash (used for overhead or the aforementioned reserve fund) and pro bono expertise.

Communication

Our communication is aimed at strengthening the support for our work by experts, volunteers, donors, partners, and other stakeholders. Our presence at conferences and meetings, flash reports, stakeholder meetings, website, Twitter, LinkedIn and the annual report will remain instruments to achieve this goal.

Objectives 2018

1. All companies should achieve short-term financial sustainability, while the long-term financial sustainability performance must improve.
2. Increase the number of SHS customers according to agreements with donors.
3. Increase the number of mobile payment customers through pilot projects.
4. Improve marketing/sales practices to realise a significant increase in customer retention.
5. Optimize battery inspection procedures for both SHS and mini-grids in order to lengthen battery life.
6. Finalize the new database that facilitates data import and storage from FRES companies to FRES NL.
7. Set up a five-year reserve fund with earmarked amounts for future replacements for each company.



Orodara, Kourinon (Burkina Faso)

Operating account 2018

	Budget 2018	Budget 2017	Actual 2017
CONSOLIDATED INCOME			
Income from own fund- fundraising	230,269	212,000	230,269
Income from fundraising -Companies	221,541	200,000	221,541
Income from fundraising -Private persons	8,728	12,000	8,728
Subsidies group companies (committed)	598,000	3,431,000	1,724,755
Yeelen Kura,Mali (EU Regional)	500,000	581,000	478,910
Yeelen Kura, Mali (EU Fragile States)	-	600,000	-
FRES Uganda (EU regional)	-	581,000	366,225
FRES Uganda (EEP)	-	150,000	139,533
FRES Uganda (Wordbank/REA)	-	20,000	-
FRES Guiné-Bissau (EU GB and EU reg)	-	818,000	211,284
FRES Guiné-Bissau (OFID)	98,000	100,000	176,663
FRES Cameroon (EU Regional)	-	581,000	352,140
Subsidies group companies (non committed)	-	100,000	-
FRES Guiné-Bissau (UNIDO and ECREEE)	-	100,000	-
Income from group companies operating activities	2,249,000	2,300,000	3,206,364
Yeelen Kura, Mali	950,000	1,200,000	1,403,945
FRES Uganda, Uganda	470,000	600,000	827,180
FRES Guiné-Bissau, Guinea Bissau	500,000	500,000	608,353
Yeelen Ba, Burkina Faso	329,000	-	366,886
Return on investments in funds	180,618	302,000	180,618
Financial costs	(32,317)	2,000	(32,317)
Financial income	101,033	150,000	101,033
(Un)realised gains/losses shares and bonds	111,902	150,000	111,902
Transfer from own reserves and funds	2,454,113	615,000	628,640
Transfer from / to own reserves	2,454,113	615,000	628,640
Total consolidated income	5,712,000	6,960,000	5,970,646
NON CONSOLIDATED INCOME			
Subsidies group companies (committed)	-	-	-
NuRa, South Africa (DOE)	-	-	-
Income from group companies operating activities	750,000	1,450,000	800,890
NuRa, South Africa	750,000	1,200,000	800,890
Yeelen Ba, Burkina Faso	-	250,000	-
Net cashflow from subsidiaries consolidated/non-consolidated	289,000	15,000	(10,762)
Total non consolidated income	1,039,000	1,465,000	790,128
SUM OF THE INCOME	6,751,000	8,425,000	6,760,774

Consolidated income

Income from own fund fundraising

Alliander donated for office expenses and the payroll costs for the General Director and private donations.

Subsidies group companies (committed)

The budget is based on the contractual agreements.

Yeelen Kura, Mali (EU Regional and Fragile States)

Further expansion investments were put on hold in 2017 due to the political climate in Mali.

Fres did not yet use the received pre-financing (EU Regional). This leads to a situation that no new amount can be claimed in 2018 for EU regional.

FRES Uganda, Uganda (EU and EEP)

Fres received EU pre-financing in 2017 as the EEP contract was closed at the end of 2017.

FRES Guiné-Bissau, Guinea-Bissau (EU/EU regional)

Fres Guiné-Bissau already connected 1000 SHS customers in 2017 that were originally planned for installation in 2018.

FRES Guiné-Bissau, Guinea-Bissau (OFID)

OFID is contributing EUR 98 000 as a last payment for the solar mini-grid in Contibuel that was built in the period 2016 - 2018.

New Initiatives

FRES has asked the EU to shift the build of 2500 Solar Home Systems originally planned for Cameroon to other FRES countries and a potential new country.

Subsidies (non-committed)

FRES Guiné-Bissau, Guinea-Bissau (EU)

FRES does not expect further funds as the EU contract was closed during 2017.

Income from group companies operating activities

These revenues consist of income from customers. Capital subsidies are not included.

Yeelen Kura, Yeelen Ba, FRES Uganda and FRES Guiné-Bissau

For Yeelen Ba (271 new customers) , Uganda (600 new customers) and Fres Guine-Bissau (200 new customers), we expect an increase in income. Mobile payments and more stringent debt collection are expected to contribute to better payment rates. Yeelen Kura expects to lose approximately 2100 customers in the second half of 2018 when the nationalization of our minigrids is effectuated. On the other hand we plan, when possible in the current political situation, to install 1000 new customers in the same period due to potential new solar minigrids in other villages.

Transfer from own reserves and funds

In 2018 a transfer from our own reserves of EUR 2.454.113 is expected.

Non consolidated income

As Nura is not consolidated in the annual accounts of FRES the income from Nura are stated on a separate line item.

CONSOLIDATED EXPENSES

	Budget 2018	Budget 2017	Actual 2017
Expenses for group companies' operational activities (excl depreciations and provisions)	1.260.000	1.970.000	2.868.427
Yeelen Kura, Mali	400.000	750.000	647.934
FRES Uganda, Uganda	370.000	500.000	756.427
FRES Guiné-Bissau, Guinea Bissau	240.000	400.000	926.154
NuRa, South-Africa (costs in NL)	50.000	70.000	55.996
Yeelen Ba, Burkina Faso	200.000	250.000	481.916
Expenses for replacements and reinstallations of group companies	450.000	345.000	99.917
Yeelen Kura, Mali	150.000	150.000	6.000
FRES Uganda, Uganda	100.000	70.000	-
FRES Guiné-Bissau, Guinea Bissau	100.000	50.000	-
Yeelen Ba, Burkina Faso	100.000	75.000	93.917
Expenses for expansion of group companies	2.850.000	3.950.000	2.037.128
Yeelen Kura, Mali	2.400.000	1.600.000	872.676
FRES Uganda, Uganda	300.000	600.000	507.453
FRES Guiné-Bissau, Guinea Bissau	150.000	750.000	631.947
FRES Cameroon, Cameroon	-	1.000.000	25.052
Yeelen Ba, Burkina Faso	-	-	-
Expenses for new initiatives	500.000	45.000	2.917
FRES Service costs- spent on objectives	532.070	535.150	589.515
Direct support existing companies	308.601	310.387	307.136
Direct support expansion of companies	220.277	221.552	267.769
Direct support new initiatives	3.192	3.211	14.610
Spent on management and administration	-	-	-
FRES Service costs - management and administration	158.930	159.850	113.198
Direct costs	42.911	43.160	6.467
Indirect costs	116.019	116.691	106.731
TOTAL CONSOLIDATED EXPENSES	5.751.000	7.005.000	5.711.102
Expenses for group companies' operational activities non consolidated (excl depreciations and provisions)	800.000	1.070.000	1.049.672
NuRa, South-Africa	800.000	1.070.000	1.049.672
Expenses for replacements and reinstallations of group companies non consolidated	200.000	350.000	-
NuRa, South-Africa	200.000	350.000	-
Expenses for expansion of group companies non consolidated	-	-	-
NuRa, South-Africa	-	-	-
TOTAL NON CONSOLIDATED EXPENSES	1.000.000	1.420.000	1.049.672
Sum of the expenses	6.751.000	8.425.000	6.760.774

Notes on expenses 2018

Expenses for group companies' operational activities (excl. depreciation and provisions)

These expenses are made for operational activities in the FRES companies.

Yeelen Kura, Mali

Yeelen Kura might lose approximately 2100 customers in the second semester of 2018 due to nationalization of minigrids. FRES hopes to be able to connect 1000 new minigrid customers in the same period when the political situation makes that possible.

The originally budgeted OPEX costs of 2017 were revised during 2017.

FRES Uganda, Uganda

The budget is higher because we plan to install 600 Solar Home Systems which leads to higher installation costs.

Yeelen Ba, Burkina Faso

Expenses are expected to be at the 2017 level or somewhat higher.

FRES Guiné-Bissau, Guinea-Bissau

Expenses will remain on same level as compared to 2017.

Expenses for replacement of group companies

Yeelen Kura, Mali

This concerns the expenses for replacement of Solar Home Systems parts, maintenance of mini-grid networks, replacement of batteries of minigrids and removal of systems from cancelled customers.

FRES Uganda, Uganda

This concerns the expenses for replacement of Solar Home Systems parts and the removal of systems from cancelled customers.

FRES Guiné-Bissau, Guinea-Bissau

This concerns the expenses for replacement of Solar Home Systems parts and the removal of systems from cancelled customers.

Yeelen Ba, Burkina Faso

This concerns the expenses for replacement of Solar Home Systems parts and the removal of systems from cancelled customers.

Expenses for expansion of group companies

These expenditures concern capital investments for connection of new customers mainly in Mali, Uganda and a potential new country.

Yeelen Kura is expected to increase investments on mini-grids.

Yeelen Kura, Mali

An investment of EUR 2.400.000 is planned for expansion mini-grid (EU funding and co-financing FRES).

FRES Uganda, Uganda

An investment of EUR 300.000 is planned in 2018 with EU subsidy for connecting new customers.

FRES Guiné-Bissau, Guinea-Bissau

An investment of EUR 150.000 is planned for expansion of Solar Home Systems.

Expenses for New Initiatives

This concerns the expansions foreseen for Cameroon. After approval from the EU, FRES will reallocate the expansion to existing companies and when decided accordingly, to a potential new country.

FRES service costs

Service costs for 2018 are slightly lower budgeted than actual service costs in 2017.

FRES has a prudent spending policy with regard to service costs. The budget for a database project to improve quality of reporting is included.

Non consolidated expenses

NuRa, South-Africa

NuRa will decrease its OPEX in 2018 as it will continue to downsize the company.

The number of reinstallations is foreseen to be limited in 2018.

APPENDICES



Ms. Steven's shop in Kahirimbi (Uganda)

Terminology

AC and DC

Alternating Current (AC) is an electric current with periodically altering current direction. Power that is supplied to households and industries via the electricity network usually involves Alternating Current.

Direct Current (DC) is an electric current with constant current direction. All batteries and solar panels are examples of power sources that supply DC (when loads are connected). An inverter can convert direct current (DC) into alternating current (AC).

ANBI

An organisation for the general benefit that is accepted as such by the Dutch Tax Authorities and is exempt from paying tax on inheritances or gifts. Moreover, private donors may deduct donations from their income tax.

BoD

Board of Directors that supervises a FRES company.

Concession area

The area for which a FRES company has permission from the relevant authorities to provide its services.

Fee-for-service

Customers pay a monthly fee for access to light and/or electricity; the amount depends on the chosen service level, and guarantees the maintenance of the necessary technical system.

Financial sustainability

Revenues are larger than operational and replacement costs for the foreseeable future (we use depreciation where detailed information on future replacement costs is not available).

FRESco

FRES company in Africa.

GHG

Greenhouse Gas. GHG is a gas in the atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect that drives climate change or global warming of the planet.

HSE

Health, Safety and Environment.

Mini-grid

A small electricity network (several km) not connected to a national grid, to which customers in the vicinity can be connected.

Non-payment Rate

The percentage of customers with payment arrears of (at least) 30 days.

Payment Rate

Payments received as percentage over payments due in a certain period.

Public Private Partnership (PPP)

A cooperation agreement between the government and the corporate sector.

Rural electrification

Providing rural areas with access to electricity.

SHS

Solar Home System.

SHS customer equivalent

Customers who are connected to a mini-grid use higher capacities and/or more power than customers with an SHS. One mini-grid customer is considered to be the equivalent of five SHS customers.

Stakeholder

A person or organisation that is influenced by or has impact on FRES.

Watt peak (Wp)

The output capacity of a solar panel, tested under STC (Standard Test Conditions).

Wh

The electrical capacity in W that is used during one hour (1 kWh = 1000 Wh, and 1 MWh is 1000 kWh).

SHS and solar mini-grid: how does it work?

How does a Solar Home System (SHS) work?

A SHS consists of one or more solar panels, batteries, a regulator and several lamps and sockets. The solar panel generates power that is stored in the battery. The stored power can be utilised during the day or evening. The regulator ensures a stable (direct) current.

Advantages of using an SHS

- Access to electricity in areas that have no electricity network in the present or foreseeable future;
- Quick installation and possible disassembly in case of, for instance, the construction of an electricity network;
- Little maintenance;
- The system can be expanded depending on the needs and budget of the customer;
- SHS is a cheaper solution than traditional energy sources in terms of light quality (lumen) or electricity (kWh) (lamp oil, batteries and/or candles);
- No harmful emissions.

Limits in using an SHS

- The number of electrical devices that can be connected is limited;
- Devices that require a lot of electrical capacity cannot be connected;
- Cooking, heating and cooling are not possible;
- Relatively high initial investment (born by FRES).

How does a Solar mini-grid work?

A solar mini-grid consists of a solar power plant and a small electricity distribution network.

A solar power plant consists of a field of solar panels and a large battery bank. Solar power plants in Mali are modular, consisting of one or several 50 kWp solar arrays, each with over 200 solar panels covering a surface area of 400 m². Each 50 kWp module can produce up to 73,000 kWh of electricity annually. Every individual solar panel produces low voltage direct current (DC). Their combined output results in a high voltage that is converted into 220 V alternating current (AC) similar to that delivered by the national grid in urban areas.

The generated electricity is fed into the network of distribution cables and transported to customers within a radius of a few kilometres. One solar power plant of 50 kWp can provide approximately 250 families and companies with power. Many mini-grids of Yeelen Kura were originally powered by only a diesel generator, all of which have now been replaced by solar power plants while the old diesel generator serves as a backup generator. During the day, when a lot of solar electricity is produced but relatively little is used, the excess electricity that is not used by customers is stored in large batteries. At night, when the demand is relatively high and the sun is not available as an energy source, the solar energy stored in the batteries is supplied to customers. The backup diesel generator provides additional power when required.

The advantages of a solar mini-grid compared to a diesel mini-grid:

- Not dependent upon the diesel supply (important for landlocked countries depending on imports);
- Not dependent on volatile fuel prices;
- No particulate emissions, and therefore fewer health risks;
- Clean technology: no oil leakages;
- No CO₂, NO_x and SO₂ GHG emissions due to electricity production, thus mitigating climate change impact;
- Low maintenance;
- No noise;
- Lower cost of electricity production.

Procedure for starting up new companies

Phase 1: Pre-selection of countries based on three options:

- Market-potential research;
- Requests from governments or NGOs;
- Tenders issued to provide a rural area with electricity.

Phase 2: Desk research

We collect as much detailed information as we can find about laws and regulations with regard to electrification, taxes, concession areas, possible competition and the economic situation per region in a country.

Phase 3: Market research

Components of market research:

- The level of income and household expenses on traditional energy expenditure (kerosene, candles batteries and charging mobile phones);
- The potential of the area: there have to be at least 10,000 potential customers within 10,000 km²;
- The possibility of cooperating with companies, NGOs and local partners;
- Willingness of governments to work with us, by making arrangements such as exemptions of import duties and concession zone agreements.

Phase 4: Developing a Business Plan

The Business Plan has to show the viability of the new FRES company. It contains the following components: the number of expected customers, the target market, the time schedule, a financial projection of costs, income and investments, and a well-founded financing plan.

Phase 5: Decision-making and implementation

Based on the Business Plan, the Board evaluates whether or not a new FRES company can be founded. The Board then presents the decision to the Supervisory Board for approval. When the financing has been arranged, we appoint a General Manager and a Board of Directors. Every company begins small to test the local conditions and best practical approach. In this way, the financial risks remain limited.

Phase 6: Monitoring and adjusting

FRES monitors and evaluates the performance of the companies against the milestones defined in the Business Plan. In the first years after start-up particular attention is paid to the number and type of customers, expenses per customer, salary and secondary terms of employment, the number and content of customer complaints, revenue recovery rates, overhead expenses and investment expenditures per new customer. Based on this information, the company's plans and policies are adjusted where necessary.

In addition, FRES conducts assessments of the socio-economic impacts of the local company's activities.

The frequency and nature of our information supply is adjusted to the needs of our partners, donors, investors, and relevant regulators.

Organisation in detail

FRES, in full Foundation Rural Energy Services, is a foundation according to Dutch legislation. The Dutch tax authorities have granted FRES the ANBI status (ANBI: Algemeen Nut Beogende Instelling: not for profit institution serving the public interest).

BOARD

Who	Function	Additional functions	Period	Reappointment possible?
Annemarie Goedmakers	President (CEO)	Director Goedmakers B.V. President Stichting Chimbo President Executive Committee Daridibó	2014/2019	yes
Serge Leijten	Treasurer (CFO)	Freelance Management Consultant	2015/2020	yes
Joop Lasseur	Board member (COO)	Chairman Sambo Foundation	2013/2018	yes

The Board functions as a management team. It fulfils its task on a voluntary basis and receives compensation for justified actual expenses.

Responsibilities

- Determining and supervising the strategy, policy, budget and results;
- Safeguarding the progress;
- Stakeholder management;
- Deciding on the appointment and resignation of (paid and unpaid) employees;
- Fundraising;
- Being aware of conflicts of interest between the foundation and Board members and/or employees.

(Re-)appointment procedure

The Board members are appointed by the Supervisory Board upon the recommendation of the Board. The Board selects new Board members on the basis of specific knowledge and expertise within the fields of FRES. Board members are appointed for a period of five years and can be reappointed after this period has ended.

SUPERVISORY BOARD

Who	Function	(Additional) functions	Period	Reappointment possible?
Peter Smink (on behalf of Nuon until 31 December 2015, in a personal capacity from 1st January 2016)	Chairman	CEO/CFO NV Nuon Energy Board member Swedish Chamber of Commerce in the Netherlands Member Supervisory Board Amsterdam Marketing Vice Chairman Energie-Nederland	1st October 2014 / 30 September 2018	yes
Wim Sinke	Board Member	Manager Program Development at ECN Solar Energy Part-time professor Photovoltaic Energy Conversion at the University of Amsterdam Board member of the TKI Urban Energy Co-chairman of the European Photovoltaic Technology Platform Visiting scientist at AMOLF (Amsterdam)	12 December 2016 / 11 December 2020	yes
Paul Hol	Board Member	Executive Director Form International Executive Chairman Form Ghana CEO Sustainable Forestry Investments	26 January 2017 / 25 January 2021	yes

FRES has had a Supervisory Board since 2009. The task of the Supervisory Board is to supervise the management policy and the general state of affairs within FRES. The Supervisory Board advises the Board.

Responsibilities

- Appointing Board members upon the recommendation of the Board and appointing the Chairman of the Board;
- Evaluating individual Board members annually for the benefit of a well-functioning Board;
- Appointing members of the Supervisory Board after consultation of the President of the Board and/or on recommendation of the Board;
- Approving the annual plans presented by the Board, including the budget that comprises the investment and financing plans, and the revision thereof;
- Approving decisions of the Board insofar as these are not part of an adopted annual plan;
- Adopting the audited annual accounts.

(Re-)appointment procedure

The Supervisory Board consults with the President of the Board about the profile outline and an intended appointment of a member of the Supervisory Board. The Supervisory Board appoints a candidate as a member, on the recommendation of the Board, unless the recommended candidate is unsuitable or the appointment would not lead to a proper composition of the Supervisory Board. Main sponsors have the right to recommend a candidate for the Supervisory Board. Members are appointed for a period of four years and can only be reappointed once after this period.

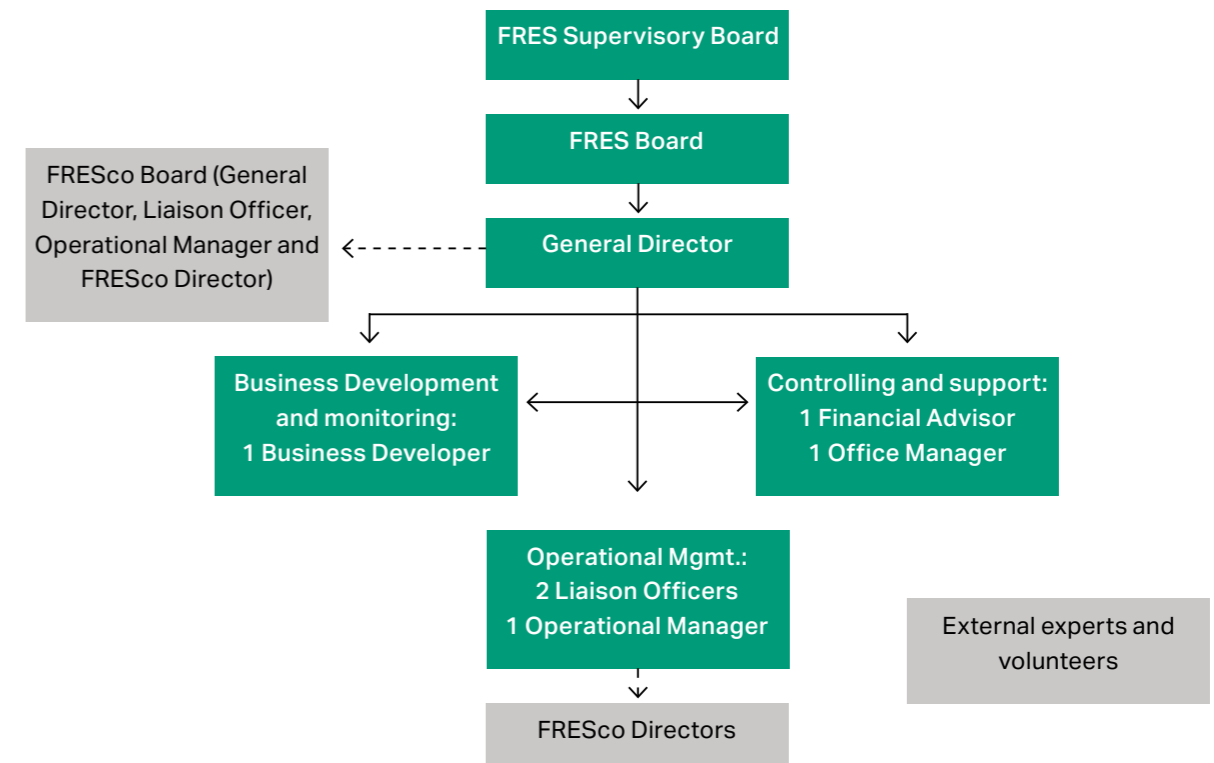
Staff FRES Netherlands

FRES strives to keep the operational expenses in the Netherlands as low as possible by working with a small core of permanent (paid) employees and a flexible team of volunteers and (pro bono working) experts.

The employees of FRES Netherlands report to the General Director of FRES NL. The General Director reports to the Board. Performance reviews are held with each employee on an annual basis. Salaries follow relevant national collective bargaining agreements.

The volunteers and pro bono working experts have different backgrounds and fields. They often work for us on a temporary basis with a clearly described assignment. We work with experts, students, interns and other volunteers. Experts support FRES with specific knowledge, experience and networks; interns and students conduct research into various areas; and other volunteers support various activities.

ORGANISATION STRUCTURE FRES NETHERLANDS



FRES Netherlands (paid staff in 2017)

Caroline Nijland – General Director (since 2007, General Director since May 2016)
 Tamara Borges de Oliveira – interim Liaison Officer (since 4 April 2016)
 Sihame Nentoussi Lucio – Financial advisor (since 13 June 2016)
 Emily Umpleby – interim Liaison Officer (since 14 June 2016)
 Cecile de Bakker – Office Manager (1 July 2016 - 8 October 2017)
 Bamshad Houshyani – Business Developer (10 October 2016 - 31 March 2017)
 Peter de Koning – Operational Manager (since 13 February 2017)
 Deji Mayaki – Business Developer (1 May - 20 September 2017)
 Inge Fraters – Office Manager (since 13 November 2017)

	2014	2015	2016	2017
Number of employees	6	6	6	5
Male / Female ratio	2/4	2/4	1/5	0/5
Indefinite / definite contract	5/1	5/1	5/1	4/1
Fulltime / Part-time	1/5	1/5	1/5	1/4
Number of FTEs	4.8	4.75	4,8	4
Average sick leave	1.5 %	1 %	1%	1%
Average age	43	43	42	45
Influx / Outflow	0/0	1/1	5/5	3/3
Number of freelancers	2	2	1	1
Influx/outflow freelancers	0/0	0/1	1/1	1/1

General Managers FRES companies

Yeelen Kura, Mali: Djibril Séméga

NuRa, South Africa: Busisiwe Nhlabathi (until February 2017), Michelle Makoni (acting General Manager since July 2017)

Yeelen Ba, Burkina Faso: Bourahima Yameogo

FRES Uganda, Uganda: Joselyne Musiime

FRES Guiné-Bissau, Guiné-Bissau: Archives Fernandes

FRES NL Advisors and Experts

Tom van Woerkom – Reducing network losses Yeelen Kura, Mali (since 2010)

Frans Nieuwenhout – Technical evaluation on tenders minigrids (since 2010)

Willem Post – Human Resources Advisor, Netherlands (since July 2012)

Wouter van den Berg – Assisting the General Director of FRES NL on Business Development

Coen de Ronde – Coach for Joselyne Musiime of FRES Uganda and Archives Fernandes of FRES Guiné-Bissau

Dirk Smits – Review inventory management system Yeelen Ba, Burkina Faso

Harry Reijngoud – Fleet management NuRa, South Africa

Paul Gaalman – Support in financial matters FRES NL (September 2017 – 15 November 2018)

Research

Frans van der Loo – Market research Sierra Leone

Naftali Gefen – Research feasibility mobile payment for FRES Uganda

Accountability statement

FRES underwrites the Code of Good Management Practices for Charities (Code Wijffels) and acts in accordance with this code.

Principle 1: Separation between the functions supervision, management and execution

FRES is a foundation with a clear separation between the functions of supervision, management and execution.

The Supervisory Board supervises the way in which the Board operates and whether this happens within the set policy frameworks. The three Board members function as the management team of FRES; they determine the policy and supervise the execution of the policy by the rest of the organisation.

Additionally, the Board supervises FRES-NL and appoints Board Members for the Boards of Directors of FRES companies. For the local FRES companies in Africa, the Boards of Directors of each company provide supervision, and the General Managers handle business management and employee supervision.

External supervision is conducted by PwC (auditing), ING (asset management and sustainable investment portfolio) and our private and business donors and subsidisers (via stakeholder meetings, the annual report and special reporting).

Principle 2: Optimal spending of resources

We strive for an optimal level of resource effectiveness.

There is a strategic multi-year Business Plan which includes a multi-year budget. We also draw up an annual plan and budget based on this multi-year Business Plan that is evaluated during and updated at the end of each year.

Principle 3: Optimal relationships with interested parties

FRES cooperates closely with national and local governments, subsidisers, volunteers, universities and businesses. A good, open and reliable communication is extremely important to us. We want to improve international commitment to rural electrification by means of active participation in international conferences or meetings and (online and offline) publications. We inform our stakeholders (stakeholder meetings, digital newsletter, website www.fres.nl, annual report and social media) on a regular basis. The annual report and annual accounts are available on the website.

Principle 4: Conflict of interest

Guidelines for situations that could include a conflict of interest (Code Wijffels point 5.5.g) are included in our management procedures.

GRI-index

FRES publishes its annual report in accordance with the guidelines of The Global Reporting Initiative (GRI) that offers companies and organisations worldwide a coherent system for reporting on sustainability. The GRI report is not externally assured.

The GRI-Index of FRES for 2017 can be found at www.fres.nl/annual-report/

Colophon

This is a publication of
FRES (Foundation Rural Energy Services)

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Photography

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Design

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Printing

WeLoveRecycled.nl, Amsterdam

Paper

Cocoon Offset, 100% Recycled

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