

2016 ANNUAL REPORT

FRES
Foundation
Rural Energy
Services



0 01 02

FRES COMPANIES

03 04 05

OUTLOOK 2017

APPENDICES*

* For Appendices 2 to 6 see www.fres.nl



Successes against the tide

The optimism that resulted from the commitments of the international community in 2015 regarding the Sustainable Development Goals and Paris Climate Agreements faded away in 2016. Terrorism, the war in Syria, migration and populism occupied the headlines last year.

FRES too had its share of frustrations, with government decisions hampering our work and underperformance in some of our companies. Nevertheless, we are proud to be able to show a modestly positive overall result for 2016 compared to 2015, with a 2% customer growth, almost 14% growth in installed solar capacity, and a slight increase in both short and long-term financial sustainability. Fres Guiné-Bissau has achieved long-term sustainability and Yeelen Kura ended diesel powered electricity production.

Sadly, NuRa in South Africa did not manage to reverse the downward trend. Attempts by its management to improve the performance in internal processes of the company did not stop the loss of customers and a deterioration of payment behaviour. The enormous growth in the first 10 years of its existence is still taking its toll.

FRES Guiné-Bissau suffered from the political instability and lack of well-trained professionals in the country. By providing training on the job, we were able to address the second issue ourselves. Political instability is beyond our control and caused serious delay in the growth of the number of customers we were able to serve this year.

Yeelen Kura in Mali faced the nationalisation of our only diesel powered mini-grid which resulted in a loss of almost 1000 customers. The positive effect was the associated decrease of diesel consumption.

Yeelen Ba in Burkina Faso had to overcome an illegal strike by its staff in the beginning of the year and struggled to get back on track for the rest of the year.

FRES Uganda had to repair damages resulting from a fraud case in 2015. As this occurred in the local management layer of the company, a thorough overhaul of internal checks and balances in all other management layers was needed.

In 2017, we may have to conclude that all our efforts to come to sound agreements with the government of Cameroon on the founding of a FRES company in this country were fruitless. A cooperative administrative environment is a pre-requisite for FRES to start a new company.

FRES NL was restructured to improve effectiveness and bring us closer to operational excellence.

Thanks to the enormous dedication of our staff, cooperation with our donors and partners, and pro bono professional support of many experts we were once again able to provide more customers with the means to improve their wellbeing and economic development than in the previous year.

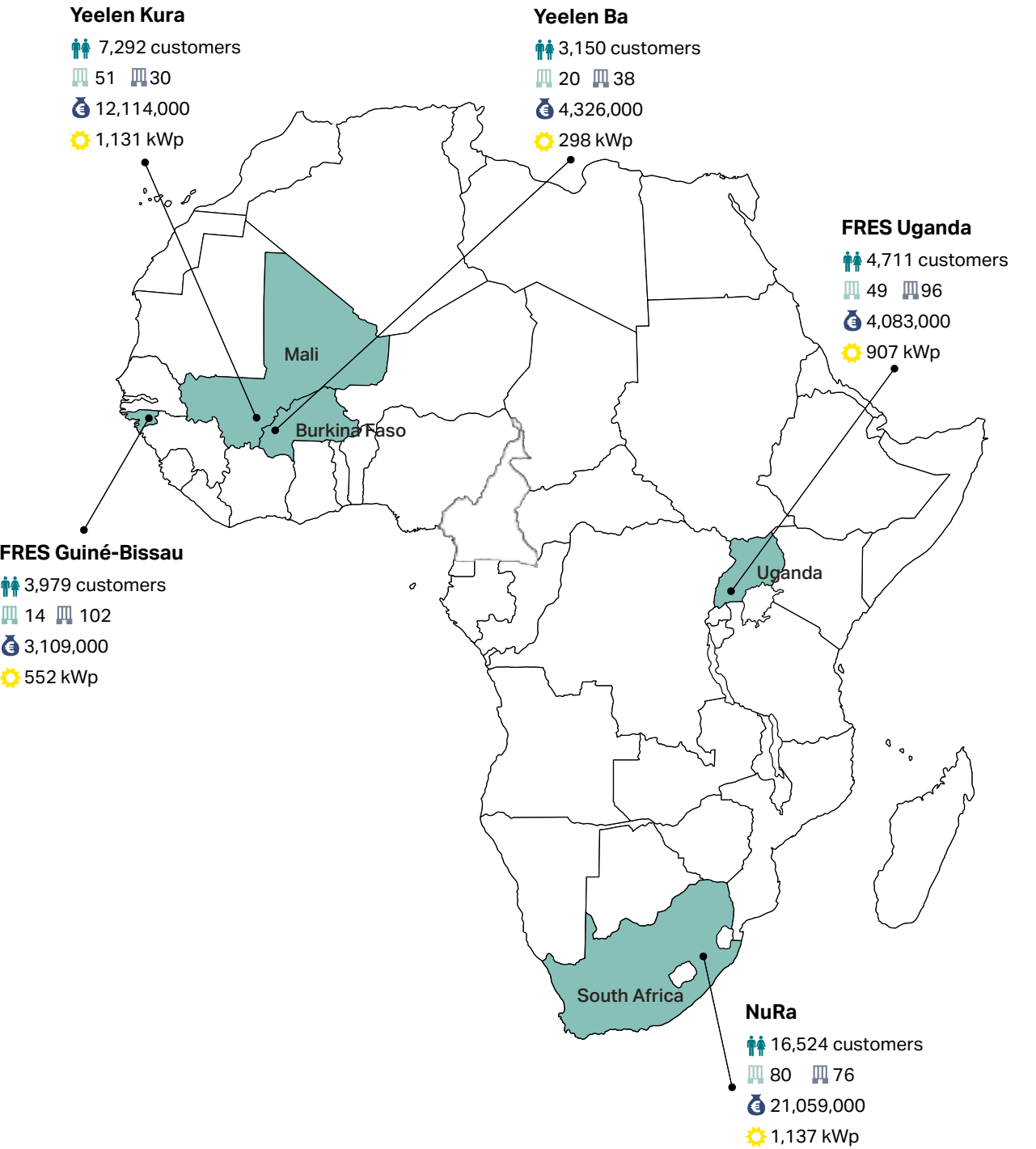
The Board

Annemarie Goedmakers

Joop Lasseur

Serge Leijten

FRES companies 2016



FRES TOTAL

Customers*	Staff (direct)	Staff (indirect)	Investmensts in euro's	Installed solar capacity (kWp)
35,656	214	342	€44,691,000	4,026

Impact of FRES companies 2016



34,940 Households 381,586 People benefitting based on household customers	4,310 Businesses (generating income) 1,371,070 Customers of these businesses	229 Schools 73,300 Children attending these schools	130 Health clinics 83,050 Patients of these health clinics
---	--	---	--



233 Government buildings 3,681 Officals working in these buildings	119 Religious buildings 10,905 People visiting these buildings	717 Villages in which the companies operate 9 Villages with Public Lighting	49 Energy stores 17 Service agents
--	--	---	--

Report from the Supervisory Board



On behalf of the Supervisory Board,
Peter Smink, Chairman

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 2016, the Supervisory Board consisted of Aad Veenman (Chairman) and Peter Smink (Secretary). There was one vacancy. Aad Veenman resigned in April 2016 and Wim Sinke was appointed in December 2016. At the end of 2016 the Supervisory Board consisted of Peter Smink (Chairman) and Wim Sinke (Member).

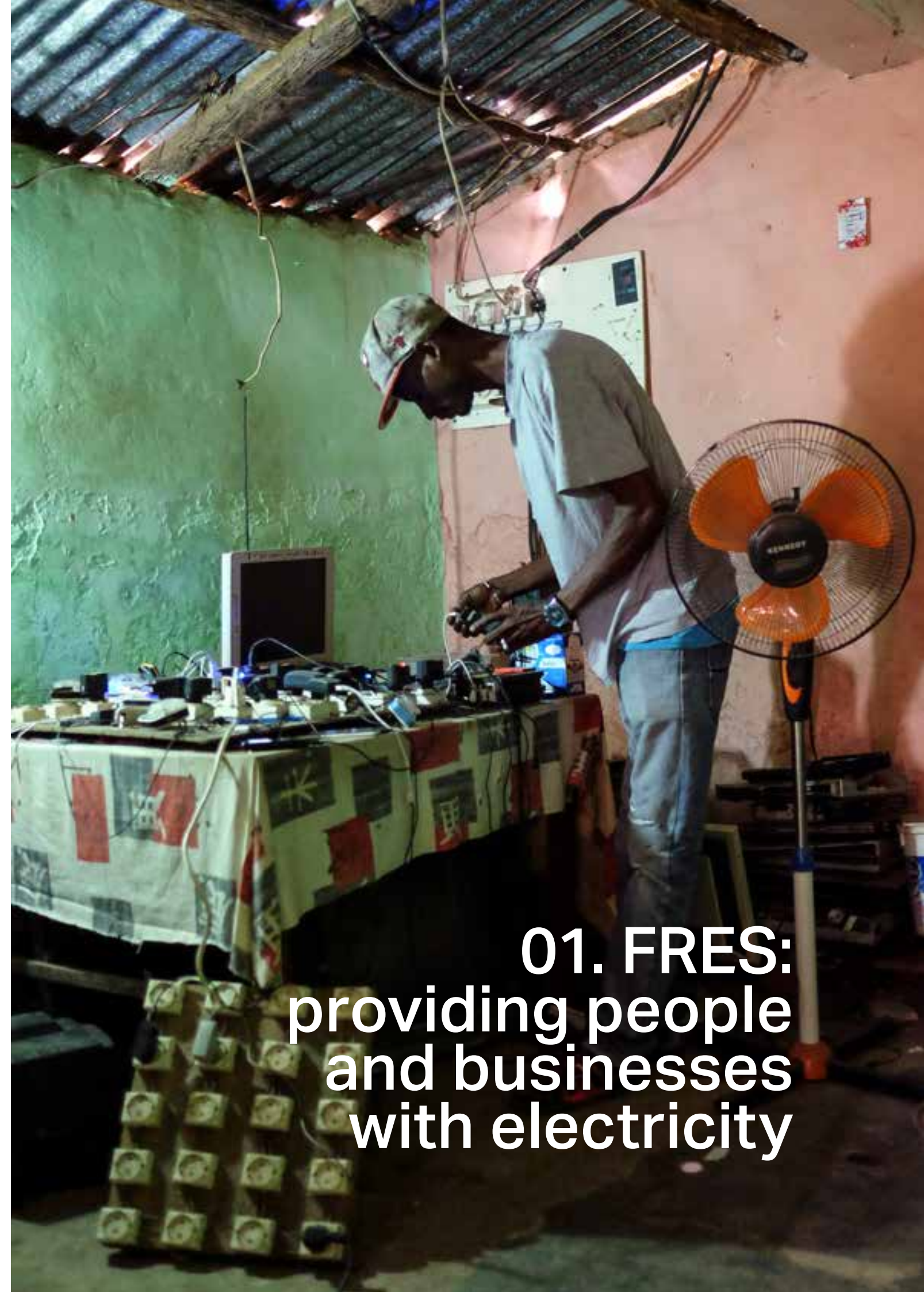
The Supervisory Board is pleased with the way FRES is continuing its growth trajectory, addresses the obstacles related to fee collection and financial sustainability, and finds innovative ways to tackle these issues to ensure that FRES achieves its goals and contributes to a world where more households and businesses have access to electricity. It welcomes the efforts for improvement in operational excellence that should lead to better customer retention, fewer reinstallations and higher operating cost efficiency.

In 2016, the Supervisory Board held two meetings. On 29 April 2016, the Supervisory Board adopted the 2015 annual accounts and granted its approval to the 2015 annual report. The Supervisory Board also granted the Board of FRES discharge over 2015.

On 12 December 2016, the Supervisory Board discussed the business plan for 2017-2021. The Supervisory Board granted its approval to the annual plan and budget for 2017. An important topic of discussion was the way forward for FRES company NuRa –which is not performing well– and the urgent need for strategic reorientation. Another topic involved the ongoing efforts related to the financial sustainability (continuity) of FRES.

The Supervisory Board thanks Aad Veenman for his much appreciated contribution during his five-year period as member/Chairman.

The Supervisory Board also thanks all employees, volunteers and the FRES Board for their high level of commitment and indispensable contribution to a successful 2016.



**01. FRES:
providing people
and businesses
with electricity**



FRES COMPANIES

	Yeelen Kura	NuRa	Yeelen Ba	FRES Uganda	FRES Guiné-Bissau
Founded	2001	2001	2008	2010	2011
Customers end 2016	7,292	16,524	3,150	4,711	3,979
Province	Sikasso and Ségou	Kwazulu- Natal	Kénédougou	Mbarara, Bushenyi and Isingiro	Gabú
Country	Mali	South Africa	Burkina Faso	Uganda	Guinea Bissau

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 2016, FRES had 35,656 customers which means that over 380,000 people in households were provided with electricity in a sustainable way. In total, more than 690,000 people, including over 4,300 owners of income generating businesses, benefitted from our services in some way. FRES is active in 717 villages of which 9 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 (FRESco's). Since 2015 FRES NL has also been subject to an OR process. In 2016 changes in the business environment and stakeholder positions were evaluated and reviewed, and key strategies were updated where necessary.

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 to be included in the articles of association of each of the FRESco's.

Vision, mission and objectives



Client in Gabú,
Guinea Bissau

VISION

In our vision, development is impossible without electricity and everyone should have access to it.

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 decrease 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.

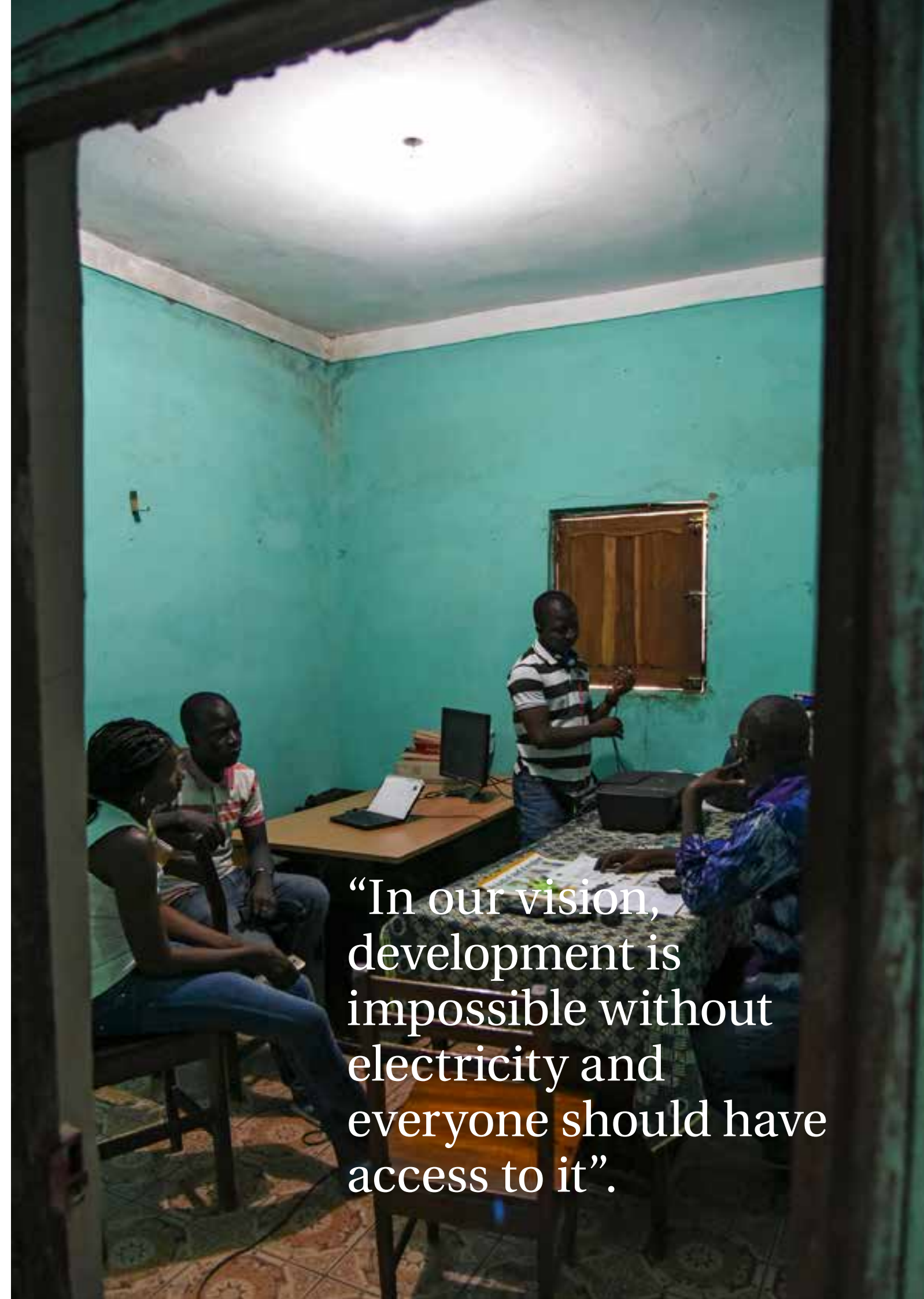
We help achieve these Sustainable Development Goals by providing people in rural Africa with affordable electricity in a sustainable way, preferably generated with solar energy. Through the provision of electricity, FRES contributes to fighting poverty by increasing employment and improving living conditions. 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 daughter companies in developing countries that actively expand rural electrification.

OBJECTIVES

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



“In our vision, development is impossible without electricity and everyone should have access to it”.

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

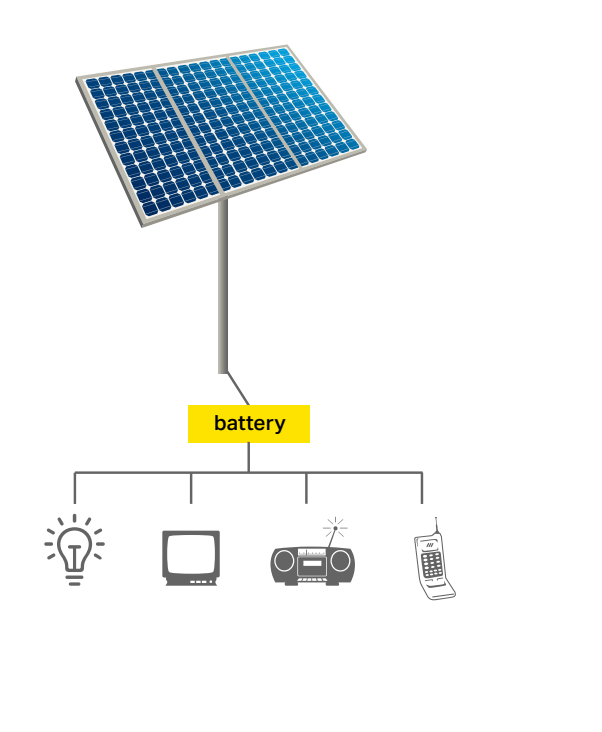
In Mali, FRES has built solar power plants that provide power to the people via a mini-grid. In some cases, the solar power plants replace (polluting and expensive) diesel generators. A mini-grid is a small electricity network, which can connect customers within a radius of a few kilometres. If customers have higher

energy demands, for instance for business usage, an SHS does not suffice and a solar mini-grid can provide a suitable solution. A solar mini-grid boosts business activities in rural areas, but can only be realised economically if the distance between customers is relatively small. Currently, only Yeelen Kura in Mali exploits solar mini-grids. Our first solar mini-grid in Guinea-Bissau is due to become operational in the first half of 2017.

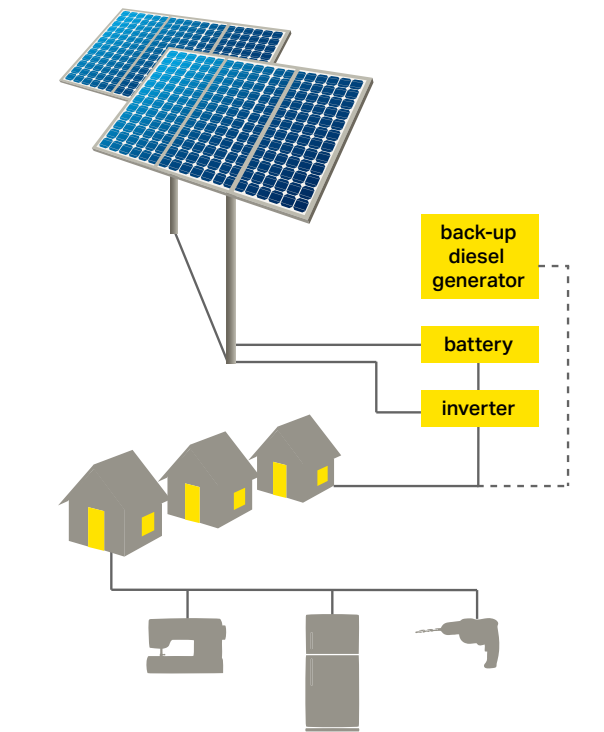
Electricity use per customer

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 (standing 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 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 borne 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. Depending on the local situation, this can be achieved with a customer base of five to eight thousand. Every FRES company strives to serve at least ten thousand customers. FRES monitors the financial performance of its companies regularly.

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 general staff of our companies is 25%, with 38% at the 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

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

with ISO certification 14001 or EMAS, and request packaging with recyclable products and in accordance with strict environmental standards, optimised by size and weight.

In 2016, FRES performed further studies into the options for battery regeneration. We hope to become able to restore battery capacity, thus increasing the lifetime of batteries whilst reducing their environmental impact. The final results and the development of a battery regeneration programme are expected in the first trimester of 2017.

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. Over 2016, FRES estimates it has reduced 15,500 tons of CO₂-eq emissions.

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 in South Africa is sufficiently developed to enable NuRa to purchase solar systems directly from the local market.

In 2016, FRES focused on the correct implementation of the local procurement policy strengthened and standardised in 2015 in all FRES companies. The new FRES-wide procurement policy is expected to deliver greater transparency, financial control and price competitiveness.

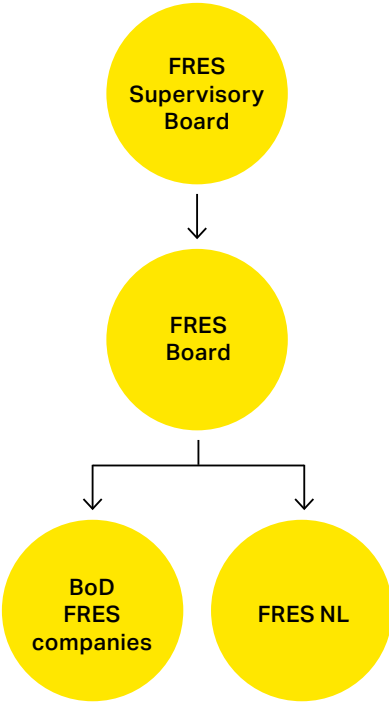
6. RISK MANAGEMENT

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).



“Our companies have to be financially sustainable to survive in the longer term”.

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 (FRESco's). It consists of three functions: 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.

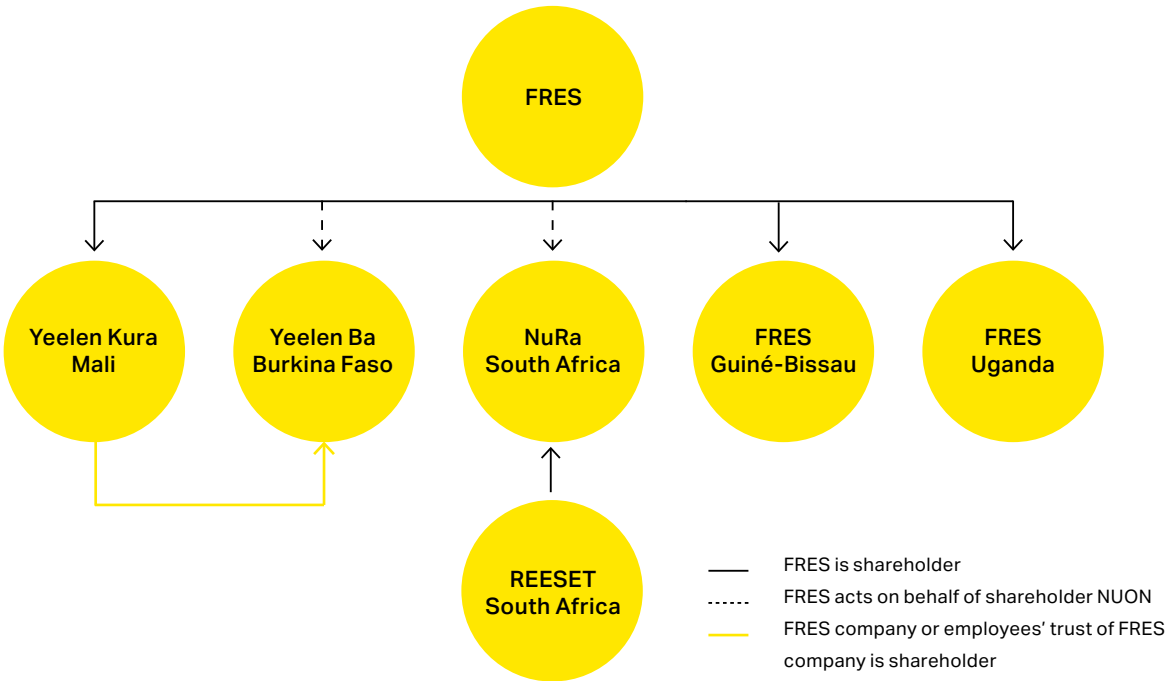
The BoD evaluates the performance of the General Manager. Now that the articles of association of all FRES companies have been standardised, General Managers will be appointed by the Shareholders Assembly as Executive BoD members.

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 working experts. The employees of FRES NL report to the FRES Board. In 2016, FRES NL redesigned its organisational structure in order to enhance its operations and business development activities.



SHAREHOLDERS STRUCTURE FRES COMPANIES



Objectives and results 2016

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 2016, 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. Internal audits will be performed to strengthen the governance of our companies.

Overall operational revenues of FRES-companies in 2016 covered 111% of the overall operational and replacement costs, compared to 111% in 2015. This means that short-term financial sustainability was achieved.

Operational revenues as a percentage of operational costs plus depreciations are our indicator for long-term financial sustainability; this percentage decreased marginally from 71% in 2015 to 70% in 2016.

Cost efficiency at FRES NL

FRES aims to reduce the overhead costs of its head office in Amsterdam. Cost efficiencies are expected to be achieved by updating the current ICT system and implementing the recommendations from the operational review.

FRES' overhead costs were reduced slightly compared to 2015 thanks to the efficient and cheaper supply of services (travel, IT, organisation of Annual Company Week).

In 2016 FRES decided to set up a structured administration database that meets FRES reporting requirements. The system will be implemented in 2017 and will make intercompany administration processes more efficient and cost effective.

FRES investigated options for an online file server for document management within FRES that will enable the team to work more efficiently. The system will be implemented in 2017.

Strengthening partnerships

FRES aims to sign renewed agreements for cooperation with Nuon and Alliander as current agreements with both strategic and long-term partners have ended.

In March 2016, FRES and Alliander signed the extension of their partnership for four years until 1 March 2020.

In September 2016 FRES and Nuon signed a new strategic partnership until 31 December 2019.

FRES-wide HSE policy

FRES will consolidate the HSE policies of each FRES company into one corporate policy, combining the best elements of each company with recommendations

from FRES' expert partners in the Netherlands.

We decided to focus first on safety measures and controls. In 2016, all FRES companies took corrective measures to avoid any incidents/accidents from happening in the future. Quarterly meetings with all the workers take place to discuss HSE events.

SHS capital costs and technology

FRES has started structuring the lifecycle cost of an SHS in each of its companies to enable internal benchmarking. New technology can be tested and evaluated based on this benchmark which will help reach our goal to reduce SHS costs.

FRES will search for a suitable supplier for a battery regeneration pilot programme in one FRES company. If successful, the programme will be applied in all other companies. The project has the potential to significantly reduce the investments needed to replace batteries for FRES companies.

FRES initiated an investigation of how to work with a service provider for mobile payments. A pilot with 100 units of remotely controlled switching systems in Mali and Guinea-Bissau will be evaluated in 2017.

The battery regeneration pilot programme in Mali that was initiated in 2016 will be evaluated in 2017: the results will be analysed to compare costs and life-extension opportunities for our mini-grid and SHS batteries.

In 2016 the cooperation programme with Alliander on improving the network performance of Yeelen Kura's mini-grids in Mali was finalised. The losses in most networks were strongly reduced. In 2017 Alliander will verify the results and outline potential next steps.

Enhanced knowledge exchange and standardisation between FRES companies.

FRES will continue to facilitate intercompany knowledge exchange and build standardised policies and procedures for use in all FRES companies. A 'train the trainers' programme will take place in 2016, focused exclusively on marketing and customer service.

During the FRES' Annual Company Week goals and objectives for 2017-2021 were set, challenges and lessons learnt were discussed and an asset management training was organised for the General Managers of all Fresco's.

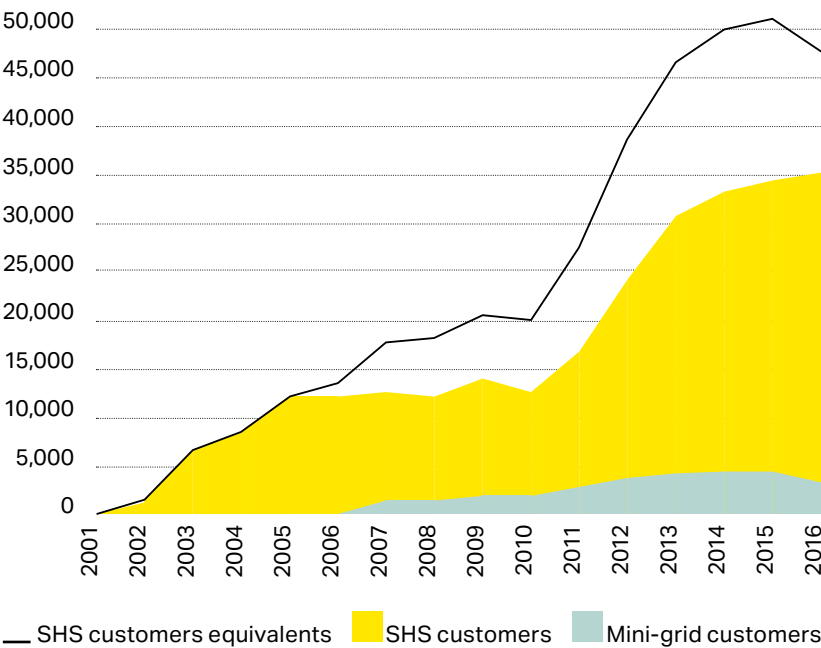
The FRES Inter Company Staff Exchange Programme (FICSEP) led to two exchanges between FRES Guiné-Bissau and Yeelen Kura staff.

The technical staff of FRES Guiné-Bissau was given a week of training in October 2016 with the objective to evaluate and reinforce their knowledge on solar technology.

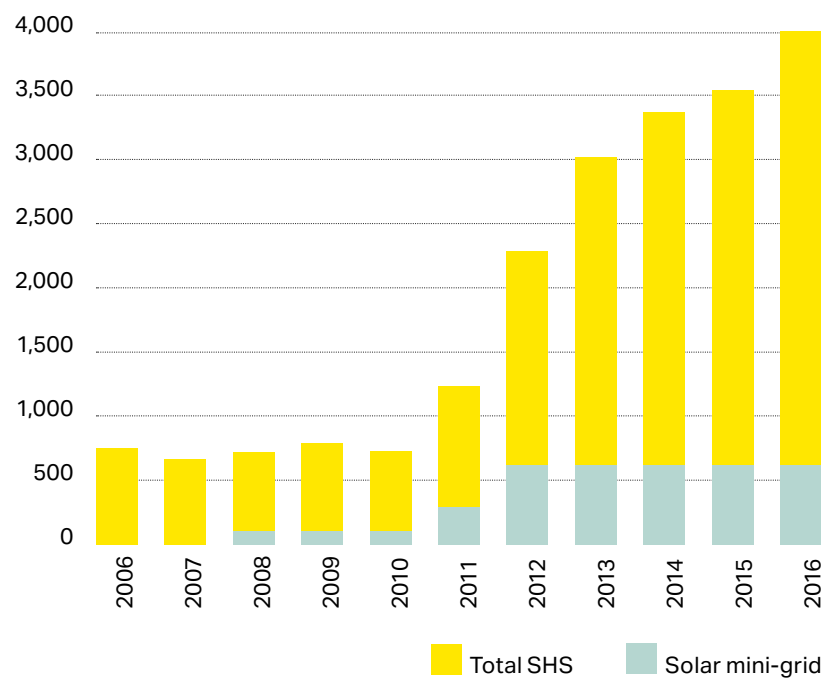
The 'train the trainers' programme on marketing and customer service did not take place in 2016 as the priority shifted to creating a marketing policy and brochure.

	Achieved	Partly achieved
Customer base end 2015		
New customers	744	1,613
Cancelled customers	1,695	1,308
Net customer growth 2016	-951	305
Customer base end 2016	16,524	7,292

NUMBER OF CUSTOMERS



INSTALLED SOLAR CAPACITY (KWP)



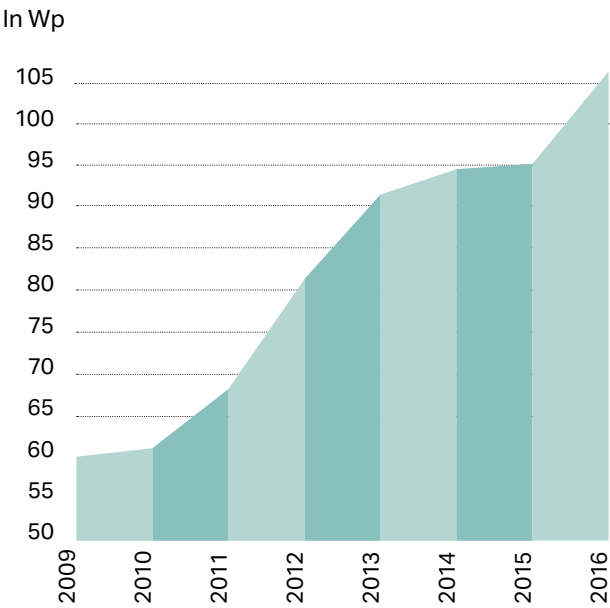
CUSTOMER DEVELOPMENT

	Nura	Yeelen Kura	Yeelen Ba	FRES Uganda	Guiné-Bissau	Total
Customer base end 2015	17,475	6,987	3,472	3,889	3,000	34,823
New customers	744	1,613	565	1,143	1,274	5,339
Cancelled customers	1,695	1,308	887	321	295	4,506
Net customer growth 2016	-951	305	-322	822	979	833
Customer base end 2016	16,524	7,292	3,150	4,711	3,979	35,656

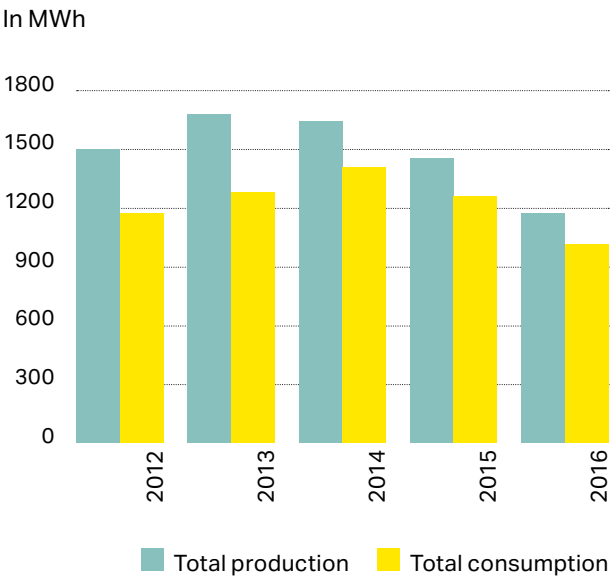
Other results of FRES in 2016 were:

- The number of customers increased by 2.3% from 34,823 to 35,656. Three companies registered growth; NuRa and Yeelen Ba, showing a decline, being the exceptions.
- In 2016, the number of SHS customer equivalents decreased by 3,195 due to nationalisation of the Bla mini grid in Mali. We calculated that on average mini-grid customers are provided with five times as much solar capacity as SHS customers.
- At the end of 2016 FRES companies had an installed capacity of 4.02 MW for their customers, a growth of 0.49 MW in one year.
- Network losses of mini-grids of Yeelen Kura were reduced from between 13 and 28% (2013) to between 6 and 10% in 2016 with the aid of our partner Alliander and an independent consultant. Some networks show an improvement of up to 22%.
- The government of Mali ordered the transfer of ownership of the Bla diesel mini-grid (infrastructure and customers) from Yeelen Kura to the national grid company, Energie du Mali (EDM). The Bla mini-grid supplied electricity to 996 customers of Yeelen Kura. The customers in Bla wanted to benefit from the lower rates offered by EDM, made possible by high subsidies on operating costs for EDM from the government. Negotiations have led to the conclusion of a suitable compensation agreement in line with national regulations before the official transfer of the infrastructure and customers was effectuated in 2016.
- In 2016 FRES pursued its discussions to come to agreements with relevant Cameroonian agencies and officials on the necessary permits to launch its operations at FRES Cameroon. We hope to finalise these discussions in the first trimester of 2017 once the Ministry of Energy and Water (MINEE) issues its final statement on the FRES application. Besides FRES' request for operation the application includes a request for an exemption from customs duties and taxes.
- In 2016, 3 of the 5 FRES companies generated sufficient operational income overall to cover all short-term operating and replacement costs.
- FRES standardised its policies for local procurement, internal audits and staff bonuses for FRES companies.

SOLAR CAPACITY PER SHS CUSTOMER



MINI-GRID GENERATION AND CONSUMPTION



SHORT-TERM PERFORMANCE INDICATOR

Company	2014	2015	2016
NuRa	102%	98%	78%
Yeelen Kura	122%	138%	132%
Yeelen Ba	51%	113%	133%
FRES Uganda	71%	92%	131%
FRES Guiné-Bissau	84%	137%	176%
FRES	93%	111%	111%

LONG-TERM PERFORMANCE INDICATOR

Company	2014	2015	2016
NuRa	87%	79%	59%
Yeelen Kura	69%	69%	61%
Yeelen Ba	39%	81%	65%
FRES Uganda	66%	54%	86%
FRES Guiné-Bissau	54%	74%	108%
FRES	70%	71%	70%

“The use of solar energy means less indoor air pollution, reduced fire hazard, and less damage to the environment”.



Impact of rural electrification by FRES

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 2016, FRES companies provided direct employment to 214 people and indirectly employed about the same number. By using locally provided goods and services where possible, a manifold of these numbers are benefitting from FRES' activities as suppliers or subcontractors.

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

All FRESco's contribute to the budgets of governments by paying other taxes and duties according to local legislation. In 2016, they combinedly paid a total amount of € 92,195 on wage taxes for their 214 employees (€ 430 per employee) and € 268,830 on other taxes – or € 7.54 per customer.

TAXES PAID

	Yeelen Kura	NuRa	Yeelen Ba	FRES Uganda	FRES Guiné-Bissau
Taxes on wages	€ 11,763 XOF 7,715,721	€ 45,674 ZAR 769,049	€ 8,872 XOF 5,819,951	€ 37,577 UGX 138,697,370	€ 4,486 XOF 2,942,803
Other taxes	€ 18,573 XOF 12,183,276	€ 142,274 ZAR 2,395,573	€ 7,872 XOF 5,163,589	€ 2,022 UGX 7,463,984	€ 13,167 XOF 8,637,188



02. FRES companies

Yeelen Kura

Mali has over 17.5 million inhabitants and is 179th out of 188 on the most recent UNDP Human Development Index. Although the percentage is increasing, only 16% 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 Stabilisation Mission in Mali (MINUSMA) began operating on the ground, and in August 2013, presidential elections formed the start of a return to civilian rule. Whilst the political situation stabilised in 2014, the northern and central parts of Mali remain threatened by criminal, violent extremist and terrorist groups that sometimes expand their activities to other parts of the country.

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 light 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.

RESULTS 2016

Payment rate

Yeelen Kura achieved an average payment rate of 96% throughout 2016, 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.

Operational and replacement costs

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

Number of customers

In mid-June 2016, Yeelen Kura lost 989 customers following the government’s expropriation of the mini-grid in the village of Bla.

BASIC INFORMATION

Year founded	2001
Products and services	SHS
Number of employees	51
Number of customers	7,292 (4,283 SHS and 3,009 mini-grid)
Number of energy stores	15
Shareholders	100% FRES



Despite this loss, Yeelen Kura had a total of 7,292 customers at the end of 2016, in line with its target of 7,248 customers for 2016. A record number of 1,613 new customers were connected.

Financial sustainability

Yeelen Kura’s short-term cost coverage decreased. Long-term cost coverage dropped as well: from 69% to 61% in 2016. Underpriced tariffs for mini-grid customers led to insufficient revenues for Yeelen Kura. With the present tariffs, it cannot build up adequate reserves to cover future replacement costs.

Contracts and investments

Yeelen Kura plans to invest in 3,900 SHS systems and in several mini-grids in the period 2015-2018 under two EU programmes: EU Regional and EU Fragile States.

Research

With the aim to expand its services to more customers, Yeelen Kura explores the possibility of using Pico Solar Home Systems (PSHS) as an addition to or as an alternative for its S1 level of SHS services.

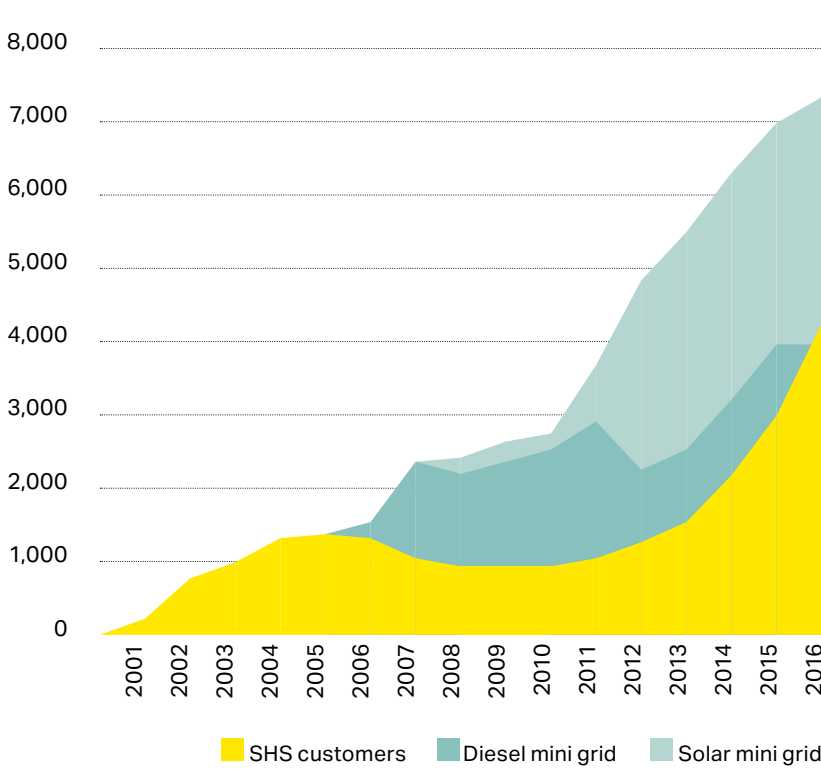


In 2016, the technical features of the ‘Fosera’ PSHS were assessed and compared to the current S1 SHS systems. A pilot study will be conducted in the first semester of 2017 to evaluate the feasibility, costs and commercial opportunities of the Fosera device in remote areas of Yeelen Kura’s operating zone.

50 units of the third prototype of the ‘Cobrador’ device were sent to Mali. These devices should enable Yeelen Kura to disconnect (non-paying) customers remotely via the local mobile network. The devices will be elaborately tested from March to June 2017.

The results of the battery regeneration pilot programme in Mali, which will be concluded in 2017, will be analysed to assess life-extension opportunities for the existing mini-grid batteries.

NUMBER OF CUSTOMERS





FRES will contact companies that specialise in this new battery technology. The idea of the programme is to assess the applicability of such new technologies in the environment in which the FRES companies operate, with the eventual goal to reduce battery life-cycle costs. FRES might form partnerships with specialised companies to reach this goal.

The grid improvement programme to reduce losses by improving the mini-grids of Yeelen Kura, which started in 2013, came to an end in 2016. A total of € 120,000 was invested in this programme. The losses in the grids in 7 locations were analysed in detail and economically attractive modifications were identified.

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

PRODUCTS, SERVICES AND RATES

Rates
In 2016 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 2016, the tariff remained at 280 FCFA/kWh (€ 0.43) for the diesel mini-grid in Bla, and 250 FCFA/kWh (€ 0.38) for the solar mini-grids. These rates were insufficient to cover lifecycle costs. Although preliminary discussions and promises were encouraging, AMADER, the governmental agency in Mali responsible for energy tariff regulation, has not yet made a final decision on the requests from Yeelen Kura to increase the tariffs for its solar mini-grids. Higher tariffs are required to reach and maintain financial sustainability.

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 2016.

Mini-grids
Upon the Malian government’s decision in mid-June 2016, the mini-grid in Bla was effectively transferred to national energy company EDM, leaving Yeelen Kura with 8 solar and/or hybrid mini-grids. Consequently, due to the insecure investment climate, investments in solar expansion of the current mini-grids originally planned for 2016 have been postponed to 2017 when

we hope to have clarified and agreed concession terms with the Malian government.

ORGANISATION, GOVERNANCE AND SUPERVISION
On 31 December 2016, Yeelen Kura employed 51 people directly and 0 on a commission basis:

Number of employees	51
Male / Female	47/4
Permanent / temporary contracts	45/-6
Fulltime / part-time	51/0
Inflow / outflow men	0/2
Inflow / outflow women	0/0
Employees aged 15-24	6
Employees aged 25-34	22
Employees aged 35-54	22
Employees aged 55 or over	1
Number of men / women in MT	4/0
Male / female store managers	11/4
Male / female interns	4/1

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 full-time 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 2016. All employees had at least one performance evaluation in the last year. Five grievances were recorded and mainly concerned the excessive workload in the energy stores and a request for a pay rise. Three complaints could be resolved by Yeelen Kura’s General Manager. Two concerned work load and will be resolved in 2017.

Health, Safety and Environment (HSE)
In 2016, sick leave totalled to 260 days. Improved focus on HSE proved to be successful, but road safety remains a specific point of attention as Yeelen Kura reported one serious motorcycle accident.

Staff development
In 2016, four sales interns took part in a training on sales techniques to promote the fee for service models. Furthermore, the General Manager of Yeelen Kura took part in an intensive English language course in Europe.

Management and governance
The General Manager, Djibril Séméga, reports to the Board of Directors of Yeelen Kura. On 31 December 2016 the Board consisted of Caroline Nijland (Chair) and Serge Leijten (Interim Board Member).

CHALLENGES AND OBJECTIVES 2017
Following the expropriation of the Bla mini-grid, new conditions for concession agreements will be re-negotiated in 2017 with the relevant governmental agencies, with a specific focus to protect new investments in the future. The political unrest in some parts of the country and the increasing threat of terrorist attacks have led FRES to prepare a company-wide Emergency Response Plan which will be implemented by Yeelen Kura in early 2017.

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%	6%
Phase 2	Koumantou	27%	8%
	Yorosso	15%	8%
	Kimparana	11%	No change
Phase 3	Kignan	13%	8%
	Niena	8%	No change
	Mpesoba	12%	No change
	Ourikela	14%	No change

Nura

South Africa (1,219,912 km2) has nearly 55 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 Human Development Index of UNDP. 85% of South-Africa’s inhabitants has access to electricity in cities and 67% 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 22% of the population in this region has access to electricity.

RESULTS 2016

Payment rate

Achieving the necessary major improvements in payment rate proved too challenging for NuRa in 2016: the overall payment rate achieved in 2016 was 56%, compared to 66% in 2015. Reasons for the further decrease in payment rate are poor customer services, illegal grid connections, unemployment of customers, and lack of firm action by the company in case of non-payment.

Operational and replacement costs

NuRa respected its budget for operational and replacement costs in 2016.

Number of customers

NuRa connected 744 new customers in 2016 under the 2015-2016 subsidy agreement with the South African Department of Energy (DoE). Non-payment forced the company to repossess many SHS systems. Overall the company lost 1,695 customers.

At the end of 2016, NuRa supplied light and electricity to 16,524 customers representing a net decline of 951 customers in 2016.

BASIC INFORMATION

Year founded	2001
Products and services	SHS and LPG
Number of employees	80
Number of customers	16,524 SHS
Number of energy stores	9
Number of service centres	7
Shareholders	80% Nuon, 20% REESET



Financial sustainability

NuRa’s short-term cost coverage decreased from 98% in 2015 to 78% in 2016. Its long-term cost coverage decreased from 79% to 59%.

Contracts and investments

NuRa achieved its installation targets under the 2015-2016 agreement with the DoE, having installed the 2000 SHS foreseen in this contract.

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

PRODUCTS, SERVICES AND RATES

Rates

In 2016, the tariffs for SHS customers were between ZAR 108 (€ 7.62) and ZAR 347 (€ 24.50) incl. VAT a month, depending on the chosen service level, which vary based on the size of the SHS and the appliances that can be connected.



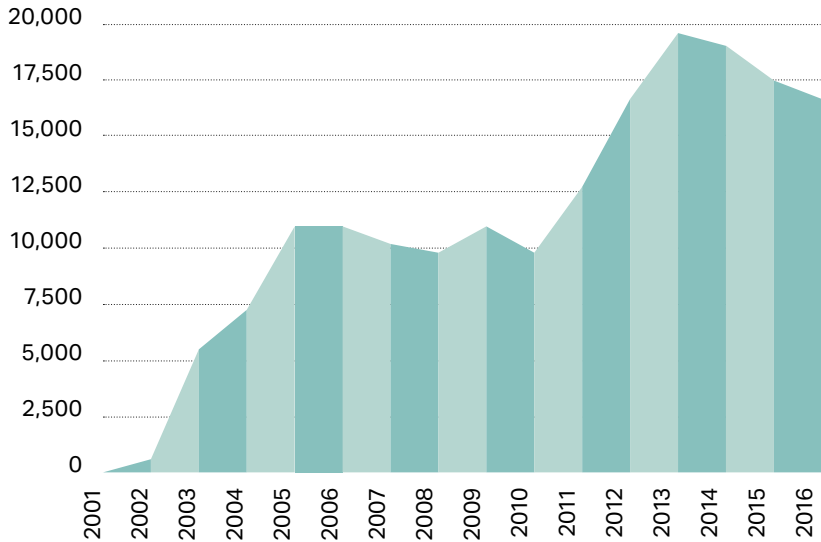
LPG

NuRa also sells LPG as alternative to cooking on wood or charcoal. Sales of LPG decreased by over 18% because of increased competition in the market.

Customer care

Customer satisfaction was measured through normal operational procedures like non-payment follow-up calls. The level of customer satisfaction is indirectly measured by the number of job cards solved and the number of days they remain outstanding. Delays in maintenance are an important reason for dissatisfaction. From the total of 12,123 complaints received in 2016, 501 complaints were still outstanding as per December 2016.

NUMBER OF CUSTOMERS



ORGANISATION, GOVERNANCE AND SUPERVISION

Following a less than satisfactory performance in 2015, the NuRa board contracted a Turnaround Manager in April 2016 with the main task to prepare and implement a plan to improve NuRa’s organisational performance, and implement sound HR practices as well as sound financial systems and controls to turn around the continuous decline of the company’s performance. Lack of tangible improvement of business results made the NuRa board decide to bring NuRa’s management under close supervision of the Board of Directors until further notice.

On 31 December 2016, NuRa employed 80 people directly and 76 indirectly, on a commission basis.

Workforce profile 2016

Number of employees	80
Male / Female	52/28
Permanent /temporary contracts	68/12
Fulltime / part-time	80/0
Inflow / outflow men	9/22
Inflow / outflow women	9/8
Employees aged 15-24	11
Employees aged 25-34	54
Employees aged 35-54	14
Employees aged 55 or over	1
Number of men / women in MT	6/9
Men / women in middle management	3/4
Number of interns	10

Salary and terms of employment

In addition to salaries, NuRa offers its employees, pension provisions and life insurance. A NuRa employee starting in an operational function earned as a minimum ZAR 2.714 (€ 192) 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, and pregnancy leave are available. Employees are motivated via performance bonuses.

All employees had at least one performance evaluation in 2016 and, depending on the function, some were evaluated quarterly or even monthly. Two official complaints were filed with NuRa’s management about salary payment and stock availability. Regarding staff salaries, a negotiation round took place with the union and an agreement was settled.

Health, Safety and Environment (HSE)

The total number of lost days due to illness was 34, a 50% reduction compared to 2015. Three work-related injuries were reported in 2016, of which 2 related to traffic accidents with motorbikes. As a preventive measure, NuRa intensified the test technicians must pass before they can drive motorbikes.

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 2016.

Staff development

Technical training courses were arranged for 34 employees in 2016.

Management and governance

The Turnaround Manager Mrs. Busisiwe Nhalabathi (interim General Manager) reported to the Board of Directors of NuRa.

At the end of 2016 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 aim is to turn NuRa into a smaller and leaner organisation, which is more efficient and effective in providing customer service. The expected overall result at the end of 2017 is substantive steps towards operational excellence.

The company may face competition in the concession area as result of the intention of DoE to award installation contracts to other operators.

Yeelen Ba

Burkina Faso is a Sub-Saharan country with more than 18 million inhabitants. The country ranks 183rd out of 188 in the most recent Human Development Index of UNDP, 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 light and electricity by installing SHS in households and small businesses via the local company Yeelen Ba. Yeelen Ba is active in the province Kénédougou, an area with over 300,000 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.

RESULTS 2016

Payment rate

Yeelen Ba reached a payment rate of 65% in 2016, a decline compared to the 84% achieved in 2015. This was mainly due to an illegal general strike of its personnel during the 1st quarter of 2016, during which all activities came to a standstill. The strike led to the dismissal of the majority of personnel, and a new team of agents was recruited and trained. The implementation of strict debt collection and cancellation procedures remains a challenge at Yeelen Ba.

Operational and replacement costs

Yeelen Ba remained on budget in 2016 by closely monitoring its operational costs. Fewer battery replacements were made than budgeted. In addition, salary costs were lower as a large part of the staff were not paid during the illegal strike.

Number of customers

In absence of the external funding needed to grow its customer base, Yeelen Ba’s objective in 2016 was to maintain a customer base of 3,500. It began the year by removing the non-payers from its customer base and subsequently started rebuilding its customer portfolio. By the end of 2016, the company had 3,150 customers.

Financial sustainability

The company’s short-term cost coverage increased from 113% in 2015 to 133% in 2016. Yeelen Ba’s long-

BASIC INFORMATION

Year founded	2008
Products and services	SHS
Number of employees	20
Number of customers	3,150 SHS
Number of energy stores	11
Shareholders	80% Nuon, 20% FRES



term cost coverage showed a decrease from 81% to 65%. A customer level of around 6,000 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. However, FRES has not been able to benefit from this subsidy as yet, because the terms for cooperation as proposed by FDE (the local Rural Electrification Agency) proved unacceptable to FRES. Further negotiations to try and find common ground between the parties are planned for 2017.

PRODUCTS, SERVICES AND RATES

Rates

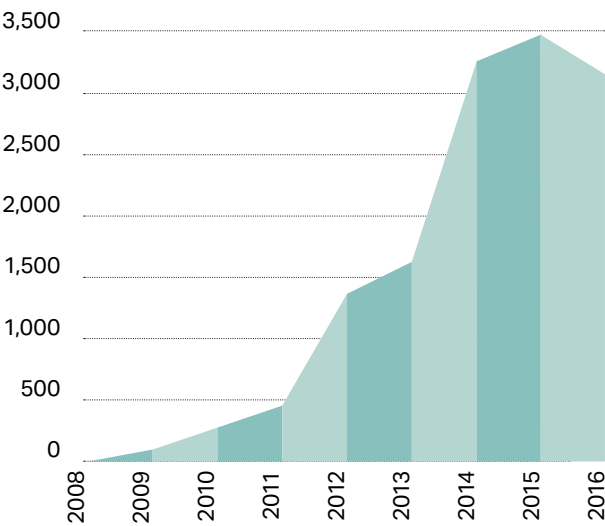
In 2016 Yeelen Ba provided three SHS services at a rate between CFA 3,845 (€ 5.86) and CFA 9,050 (€ 13.80) per customer per month.

Customer care

Yeelen Ba registers all customer complaints and observations in a specific database. A total of 890 complaints reached the company in 2016, largely related to technical break-downs. 89% of the complaints had been solved as per the end of December 2016.



NUMBER OF CUSTOMERS



Organisation, governance and supervision

On 31 December 2016, Yeelen Ba employed 20 people directly, 8 trainees and 17 people indirectly or on a commission basis.

Workforce profile 2016

Number of employees	20
Male / female	15/5
Permanent / temporary contract	6/14
Fulltime / part-time	20/0
Inflow / outflow men	10/21
Inflow / outflow women	2/0
Employees aged 15-24	0
Employees aged 25-34	15
Employees aged 35-54	5
Employees aged 55 or over	0
Number of men / women in MT	3/1
Male / female store managers	11/
Male / female technical interns	8/0

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 2016, 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 2016. The number of grievances was 2, involving requests for extra safety precautions by agents driving motorbikes.

Health, Safety and Environment (HSE)

The total number of sick days was 48, which included those caused by 3 road accidents. Despite Yeelen Ba strictly supervising the rules set to prevent accidents, such as no driving (motorcycles and cars) after 18h00 and the compulsory use of helmets, one agent was seriously injured in a motorbike accident in 2016, which led to his death in 2017.

Staff development

Yeelen Ba faced an illegal general strike of its staff (except the MT) in the first quarter of 2016. Although elaborate discussions took place between the MT and the staff on strike, no solution was found.

Management and governance

The General Manager of Yeelen Ba is Bourahima Yameogo. He reports to the Board of Directors of Yeelen Ba. On 31 December 2016 the Board consisted of:
Caroline Nijland – Chair (on behalf of Nuon)
Djibril Séméga – Member (on behalf of FRES)

CHALLENGES AND OBJECTIVES

The biggest challenge at Yeelen Ba is the continuity of its business at a level of 3,500 customers, for as long as no funds for further growth have been secured. An in-depth analysis of the company will be performed in the first quarter of 2017 to decide on its future. In the meantime, FRES will continue to pursue its efforts to find additional funding opportunities.

FRES Uganda

Uganda, a country of over 240,000 km2, is situated on the equator in Southern Africa. 20% of the Ugandan population of 40 million lives in poverty. The country holds the 164th place out of 188 on the most recent Human Development Index of UNDP. 18% 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 South-West of Uganda in ten districts, including Mbarara, Bushenyi, and Isingiro. Its head office is located in Mbarara.

RESULTS 2016

Payment rate

FRES Uganda's payment rate has declined from 89% in 2015 to 75% in 2016. The rate was affected by several external and internal factors. A miscommunication by the Rural Electrification Agency (REA) prompted a number of FRES Uganda's customers to stop their payments for a few months. REA has rectified its communication since. A severe draught in Eastern Africa reduced families' incomes to the point that many customers stopped paying their electricity bill.

Operational and replacement costs

In 2016 the company managed to stay within its budget for 2016.

Number of customers

FRES Uganda installed 1,143 customers in 2016 whilst 321 customers left (compared to 621 in 2015). Customers increased from 3,889 in 2015 to 4,713 in 2016.

Financial sustainability

The company saw its cost coverage increase from 92% in 2015 to 131% in 2016. Its long-term financial sustainability indicator has also improved from 54% in 2015 to 86% in 2016.

Contracts and Investments

The installation objectives agreed with the EU (for 2015-2018) and the Ministry for Foreign Affairs of Finland (for 2015-2017) were accomplished in 2016.

Research

A student from Delft Technical University carried

BASIC INFORMATION

Year founded	2010
Products and services	SHS
Number of employees	49
Number of customers	4,711 SHS
Number of energy stores	4
Number of service centres	4
Shareholders	100% FRES



out a study on the optimisation of the battery life-cycle performance in FRES' SHS. He recommended improved control on the maintenance of systems and unacceptable issues such as tampering and system overuse. These recommendations are currently being implemented.

In 2016 a student from the Rotterdam Business School analysed how FRES Uganda can improve the effectiveness of its marketing strategy. A marketing brochure for FRES' fee for service model will be developed in 2017.

PRODUCTS, SERVICES AND RATES

Rates

FRES Uganda offers five service levels including relatively large systems catering to the specific demands of business customers. The monthly SHS service fee ranges from UGX 23,000 (€ 6.02) to UGX 69,000 (€ 18.10).

Customer care

All customer complaints, remarks and observations are registered in a database. All registered customer complaints are attended to within 48 hours. On a weekly basis, the company received an average of



58 complaints (lamps and fuses blown, inverter failures, faulty switches, DC plugs or sockets burnt, etc.) which were all resolved.

Workforce profile 2016

Number of employees	49
Male / female	39/10
Permanent / temporary contract	49/0
Fulltime / part-time	49/0
Inflow / outflow men	8/7
Inflow / outflow women	6/5
Employees aged 15-24	3
Employees aged 25-34	40
Employees aged 35-54	6
Employees aged 55 or over	0
Number of men / women in MT	3/2
Male / female energy store managers	4/1
Male / female volunteers	0/2

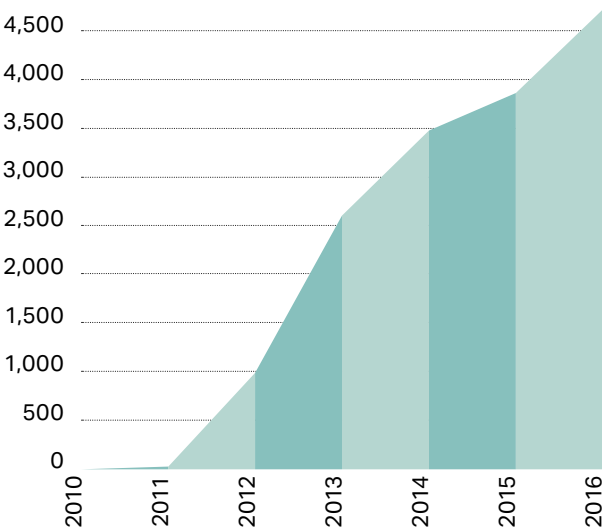
ORGANISATION, GOVERNANCE AND SUPERVISION

FRES Uganda experienced a fraud case within the management team and a petty cash fraud on lower level in 2016. This has led to dismissal of three staff members. The FRES board has issued specific instructions on internal control and audit procedures for

every FRES company office aiming to identify and tackle any irregularities in the companies' managerial, financial and operational activities. By the end of December 2016, FRES Uganda employed 49 people directly and 96 on a commission basis.

By the end of December 2016, FRES Uganda employed 49 people directly and 96 on a commission basis.

NUMBER OF CUSTOMERS





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 400,000 (€ 104) a month. Uganda does not have a legally set minimum wage. GDP per capita in Uganda was \$ 623 in 2016, which is a comparable level to Mali (US\$ 705), Burkina Faso (US\$ 713) and Guinea-Bissau (US\$ 568). Debt collecting employees were motivated via performance bonuses. All employees had at least one performance evaluation.

The 52 complaints received concerned requests for higher pay, lack of personal protective gear and mechanical breakdown due to an aging fleet. Fleet and protective gear issues have been resolved. Salaries were not increased due to the low revenues in 2016.

Health, Safety and Environment (HSE)

17 injuries and a total of 189 sick days were reported in 2016 of which 73 days were related to accidents and 116 days to regular illness. This was 34 days less than in 2015. The regular sick day period ranges between 10 and 20 days. In 2016 there were particular issues with malaria and typhoid in the area where the company is active. The most serious injuries resulted from road

traffic incidents caused by 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 received one or more training programmes varying from a two-year educational programme on professional accounting to Customer Care & Sales, conflict management resolution, management skills development, basic technical skills training and sales & debt collection, etc.

Management and governance

The Interim General Manager Joselyne Musiime was appointed in 2016 and reports to the Board of Directors of FRES Uganda. On 31 December 2016 the Board consisted of Caroline Nijland (Chair) and Joop Lasseur (Interim Board Member).

CHALLENGES AND OBJECTIVES

FRES Uganda's objectives for 2017 focus on expanding the SHS customer base by 1,200 new customers and increasing long-term cost coverage by implementing new marketing strategies to increase the scale of operations, and exploring new fee collection methods. Internal controls will be improved to prevent and combat fraud.

FRES Guiné-Bissau

Guinea-Bissau, in West Africa, has 1.7 million inhabitants and a land area of 36,125 km². The country holds the 178th place on the most recent Human Development Index of UNDP. A mere 24% 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. For FRES Guiné-Bissau this led to serious delays in realising investments.

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 2016

Payment rate

The payment rate in 2016 was 60%, compared to 78% in 2015. This reduction was partly due to rumours among customers that once the contract between the EU and FRES on the setup of the company was finalised, payment for services was no longer needed. Another part of the problem lays within the company itself: strict procedures for debt collection and disconnecting customers, and the assessment of the purchasing capacity of customers were not yet applied in a consistent way.

Operational and replacement costs

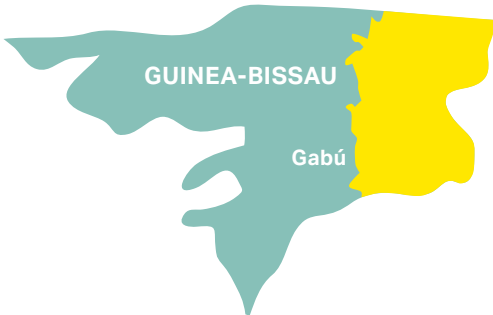
The company's operational and replacement costs in 2016 were 23% above budget due recruitment of extra staff and training needs.

Number of customers

FRES Guiné-Bissau has experienced another successful year in customer growth. In 2016 the company registered 1,254 new customers, ending the year with a customer base of 3,979.

BASIC INFORMATION

Year founded	2011
Products and services	SHS
Number of employees	14
Number of customers	3,979 SHS
Number of energy stores	10
Shareholders	100% FRES



Financial sustainability

The company increased its short-term cost coverage from 137% to 176%, while its long-term cost coverage increased from 74% to 108%. FRES Guiné-Bissau is hereby the first FRESco to reach financial sustainability.

Contracts and investments

The present subsidy contracts with the EU and OFID required FRES to install SHS systems at 700 additional households or small businesses by the end of 2016 and to connect 300 customers to electricity generated by the Contuboel mini-grid. FRES Guiné-Bissau achieved its target for SHS customers but did not manage to implement the mini-grid in 2016 due to an extended delay on customs clearance of the containers with the solar equipment to be installed.

Research

A second prototype of the so called 'Cobrador Eletrónico' was tested in the field in 2016. It is developed to enable remote disconnection of customers, using the local mobile network. The test was evaluated and led to the design of the third prototype which will be tested (50 units) in 2017.



PRODUCTS, SERVICES AND RATES

Rates
In 2016 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
Start-up activities for a solar mini-grid in the village of Contuboe were successfully completed in 2016: FRES secured a parcel of land from the relevant authorities for the construction of a solar power plant and the Ministry of Energy approved the tariffs for the solar mini-grid activities. A market study to assess electricity requirements of future customers was carried out by senior staff of Yeelen Kura and FRES Guiné-Bissau and the mini-grid was tendered and contracted. Due to delays in custom clearance of the solar equipment, installation could not start until February 2017.

ORGANISATION, GOVERNANCE AND SUPERVISION
In 2016, FRES Guiné-Bissau employed fourteen people directly and 102 indirectly, on a commission basis.

Workforce profile 2016

Number of employees	14
Male / Female	9/5
Permanent / temporary contract	8/6
Fulltime / part-time	14/0
Inflow / outflow men	5/1
Inflow / outflow women	2/0
Employees aged 15-24	0
Employees aged 25-34	12
Employees aged 35-54	1
Employees aged 55 or over	1
Number of men / women in MT	3/0
Number of male / female interns	1/0

Salary and terms of employment
The fourteen employees with a permanent/temporary contract are provided with health insurance. In 2016 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 2016. Compared to other FRES companies, FRES Guiné-Bissau outsourced much more activities or had them realised on a commission basis. Eight employees had at least one performance evaluation in 2016.

Health, Safety and Environment (HSE)
Four accidents occurred in 2016, including one motorcycle accident. 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.

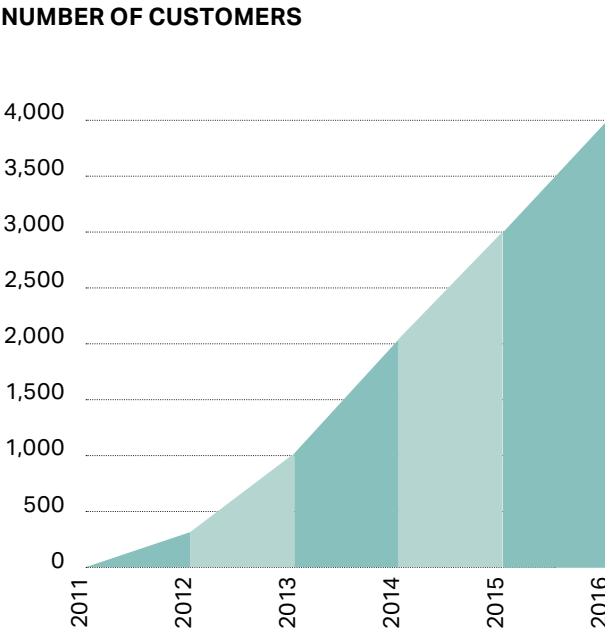
There were 50 regular sick days and another 13 sick days related to accidents in 2016.

Staff development
Of the people working for FRES Guiné-Bissau 26 men and 2 women followed a five-day technical training on strengthening the capabilities of technicians in the field of photovoltaic kits. FRES Guiné-Bissau's Technical Manager followed a seven-day technical training in Mali.

Management and governance
Reinder Bouwmeester performed his activities as General Manager of FRES Guiné-Bissau until June 2016. He was succeeded by Archives Fernandes, the former Financial Manager of FRES Guiné-Bissau.

On 31 December 2016 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 EU Regional and OFID target of 5,419 customers by the end of 2017. In addition, increasing the payment rate of its customers remains a major target.



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;
- 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 FRES Board. A performance review with each employee takes place annually.

EMPLOYEES

At the end of 2016, FRES Netherlands had a total of six paid employees. In 2016, approximately ten days were spent on training and education during working hours. Four employees followed courses that benefited their work.

VOLUNTEERS

In 2016, six experts worked on specialist tasks for FRES on a pro bono basis. Moreover, one student from Eindhoven University of Technology and one student from Rotterdam Business School performed research in Uganda.

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.



Caroline Nijland,
General Director FRES

03. FRES corporate



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.

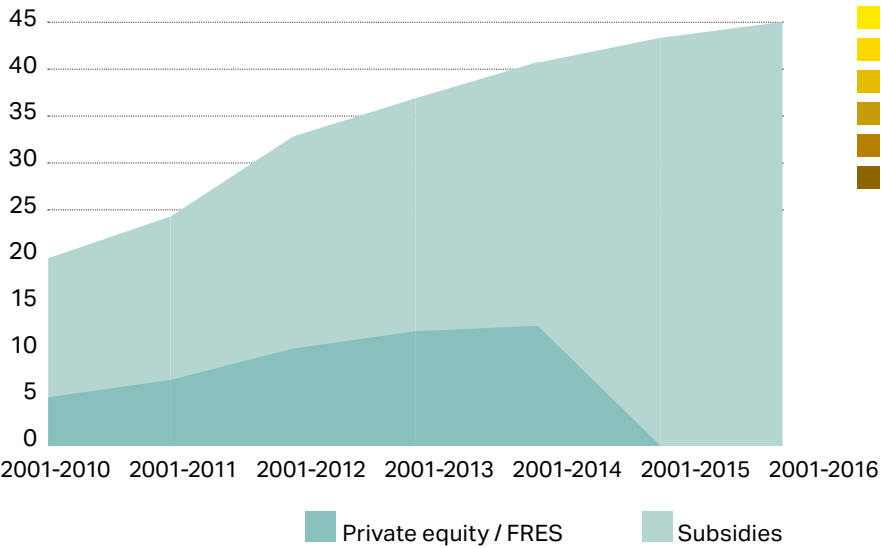
FRES aims to obtain subsidies from governments and multilateral international organisations for the financial means to increase its customer base. Additionally, we strive to establish relationships with business donors. We look for parties that match in terms of policy, objectives and work sphere. We 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.

Objectives

FRES currently has running subsidy contracts valid until 2018. Under these contracts € 7 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 2001-2016

(in million euros)

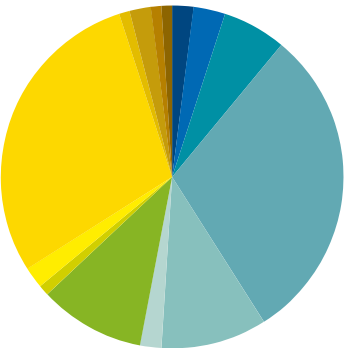


Investments

In the period 2001-2016, FRES invested a total amount of € 45 million in the FRES companies, of which € 31.7 million was financed through various subsidies and € 13.3 million via FRES itself and private funds.

TOTAL INVESTMENT PER SUBSIDY SOURCE

2001 - 2016



- Gov. NL - ORET/MILIEV
- Gov. NL - PSOM
- Gov. NL - PPP
- Gov. of South Africa
- Gov. of Mali/WB
- Gov. of Uganda/WB
- European Union till 2015
- Gov of Finland / EEP till 2015
- Doen Foundation
- Private equity/ FRES till 2015
- OFID-EU 2016
- European Union 2016
- Gov of Finland / EEP 2016
- Private equity/ FRES 2016



Subsidies

FRES' subsidy-related activities have been concentrated on ongoing subsidy negotiations with IRENA, ECREEE/UNIDO and the World Bank (SREP):

- 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 offered by FDE were not acceptable to FRES so far.
- An ECREEE/UNIDO subsidy is 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. Hopefully steps will be taken so FRES' proposal can be reviewed in 2017.
- World Bank (SREP): Since the Bla diesel to solar mini-grid conversion plan was halted because of the grid's expropriation, FRES is following up with the SREP seeking a subsidy for up to USD 1 million for a greenfield solar mini-grid project.

In 2016, FRES continued the implementation of its existing subsidy programmes:

- The Government of Finland (EEP: Energy and

Environment Partnership) with a subsidy value of € 600,000 to scale up SHS activities in Uganda. This programme is to be completed in the first quarter of 2017.

- OFID (OPEC Fund for International Development) with a subsidy value of € 450,000 to support the implementation of a new solar mini-grid in Guinea-Bissau. This mini-grid is expected to be completed in the first quarter of 2017.
- The EU Regional and Fragile States programmes with a subsidy value of € 9.9 million to scale up SHS and mini-grid activities in four countries.

Mid-term and final project evaluations are carried out by external parties. 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 2016, FRES received business donations from Alliander, which covered part of our desk expenses and the salary of the Director Business Development. These contributions were made under an agreement of which the term was renewed in 2016 to cover a period of four additional years (2016-2020).

In 2016, FRES received a donation from an unspecified foundation. The donation was spent on the purchase of new solar home systems with the aim to connect 25 households in the province of Kénédougou in Burkina Faso.

Voltiq B.V. made a Christmas donation to FRES at the end of 2016.

Private donations

Private donations were received directly from 27 donors. Furthermore, we indirectly received private donations from 874 Nuon customers who donated the customer points they saved as members of the Nuon Exclusive Program to FRES.

The money donated by private donors in 2016 will be used for customers of Yeelen Ba in Burkina Faso.

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 any complaints in 2016.

Governance

FRES BOARD

In 2016, The FRES Board consisted of three members: Annemarie Goedmakers (CEO/President), Serge Leijten (CFO/Treasurer) and Joop Lasseur (COO/Member). 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 11 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 2015;
- The Business Plan 2017-2021 and annual plan/ budget 2017;
- 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 2016 costs incurred by board members mainly consisted of travel and telephone expenses.

FRES SUPERVISORY BOARD

At the start of 2016, the FRES Supervisory Board consisted of Aad Veenman (Chairman) and Peter Smink (Secretary). Aad Veenman resigned as Supervisory Board member on 30 April 2016. Wim Sinke was appointed as member of the Supervisory Board on 12 December 2016. One vacancy remains.

The FRES Supervisory Board met twice to discuss and decide on:

- The annual accounts and annual report 2015;
- The Business Plan 2017-2021 and annual plan/ budget 2017;
- The appointment of new supervisory board members.

CODE WIJFFELS

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 for 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 monitoring 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 twice in 2016. 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 27-29 June 2016. Business results of 2015 were evaluated and future strategy and business plans were discussed with the FRES Board.

OUTLOOK 2017 AND BEYOND

In December, the FRES Board adopted the Business Plan 2017-2021. 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 must 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.

Training and personal development of local staff continues to be important. A French speaking General Manager followed an intensive English language course in 2016. A technical training for solar technicians was organised for FRES Guinée-Bissau. This was part of our 'train the trainers' programme for solar technicians which has as objective to 'train future trainers' in each company. Participants of the programme become the future focal points for ongoing training within their respective national teams, and in turn pass on their new knowledge to local marketing and sales teams. This allows each company to have local trainers ready to train new colleagues as they are recruited.

A photograph of a man in a yellow shirt sitting at a desk in a rural clinic. The room is dimly lit by a single light bulb hanging from the ceiling. The desk is cluttered with papers and medical supplies. A metal examination table is visible on the left, and a wicker chair is on the right. The walls are white and show signs of wear.

“FRES has changed the life of rural communities; people were dying due to fires caused by candles, paraffin lamps, and other unsafe sources of light”.

Thusi Lawrence Mfene, customer

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 maintains a close eye on risks to respond in a timely fashion. 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;
- Extensive and sound research methods;
- 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 2017-2020 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;
- Unique 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;
- Significant technical developments: e.g. in the storage of electricity and lighting (LEDs);
- 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 (six) 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.

Threats

- Fraud;
- Inadequate legal opportunities to address fraud;
- Political instability;
- Increasing transport expenses;
- 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;
- Encroachment of illegal grid connections in South Africa;
- 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 towards 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 2016 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 replacement. Together, FRES and its local companies have set key performance indicators (KPIs) which are monitored via monthly reports. The performance of FRES com-

panies 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 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 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 on possible ERP solutions.

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. In 2016 testing of this metering system led to improvements. Testing continues in 2017.

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. Political stability is one of the screening criteria that FRES uses before deciding to start activities in a country. In cases of acute unrest the safety of FRES employees is our highest priority. Terrorist attacks in Mali led to the development of a Emergency Response Plan that will be finalised in 2017.

6. High fuel prices

A large part of our operational expenses comprises transport costs needed to perform installation and maintenance activities. We expect diesel 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 will convert existing mini-grids accordingly. Demand Side Management (DSM) policies, for example via load shedding or differentiated pricing, were implemented in 2016.

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 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 financially sustainable levels. 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 is (il)legal grid connections. A survey to determine the extent of this problem and what can be done to prevent or mitigate this reason for

customer loss was carried out in 2016. NuRa will not install SHS for new customers in areas prone to illegal grid connections.

9. Fraud prevention

FRES faces incidents of fraud within its companies. FRES actively attempts to prevent and combat fraud. We aim to make fraud unrewarding and consequences of fraud discovery a disincentive to colleagues and customers. A standardised policy for the delegation of authority and authority limits is now implemented in all FRES companies. This has led to stricter and more frequent internal controls and audit measures in all FRES companies from 2016 onwards. FRES continuously seeks to make sure that the level of internal control and the audit of the companies are adequate and aimed at preventing fraud and that staff within the companies will comply to all relevant procedures.

10. Continuity reserve

FRES has a continuity reserve of € 250,000 to be used in case the activities of FRES should suddenly stop 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.

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 auditor’s statement. 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 accountant in accordance with the applicable laws and regulations.

ASSET MANAGEMENT

Since 2009, the management of FRES-owned funds available for a longer time period has been allocated to an external asset manager (ING Bank). This way, we achieve better results than if we would place the funds in a savings account. The objective for the asset manager is achieving an optimal effectiveness within a moderately defensive investment profile, while respecting the ethical and social boundaries set by

FRES. We have an asset management agreement with ING Bank that includes our investment policy.

Under the asset management agreement, the investment horizon is four to eight years. The portfolio distribution that belongs to this risk profile 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.

ING Bank issues quarterly reports on the development of the investments. The asset manager accounts for the results of the portfolio to the CFO three times a year. The asset manager measures the results of the portfolio, compares them to various benchmarks, and analyses the differences in performance. Based on these results, the FRES Board decides whether the investment policy has to be adjusted. The portfolio is continuously screened on the sustainability criteria that have been established.



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

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.) has been inspecting our annual accounts and the coherence with the rest of the annual report every year free of charge since 2006. 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 customers. In July 2012, DGIS unilaterally terminated the subsidy agreement with FRES.



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.

FRES

FRES corporate

55



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.



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, the NGO **Daridibó** in Guinea-Bissau, FRES successfully requested a subsidy of € 2.5 million from the



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 used 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 2016;
- Information on FRES features in the Nuon Newsletter which reaches 1 million customers.

ACTIVITIES 2016

FRES organised its Annual Company Week, in June 2016 at Nuon headquarters, Amsterdam. During this meeting, the General Managers of all FRES companies presented their companies and results. Goals and objectives for 2017-2021 were set, challenges and lessons learnt were discussed and an asset management training was given.

We sent out five Flash Reports to our stakeholders in 2016.

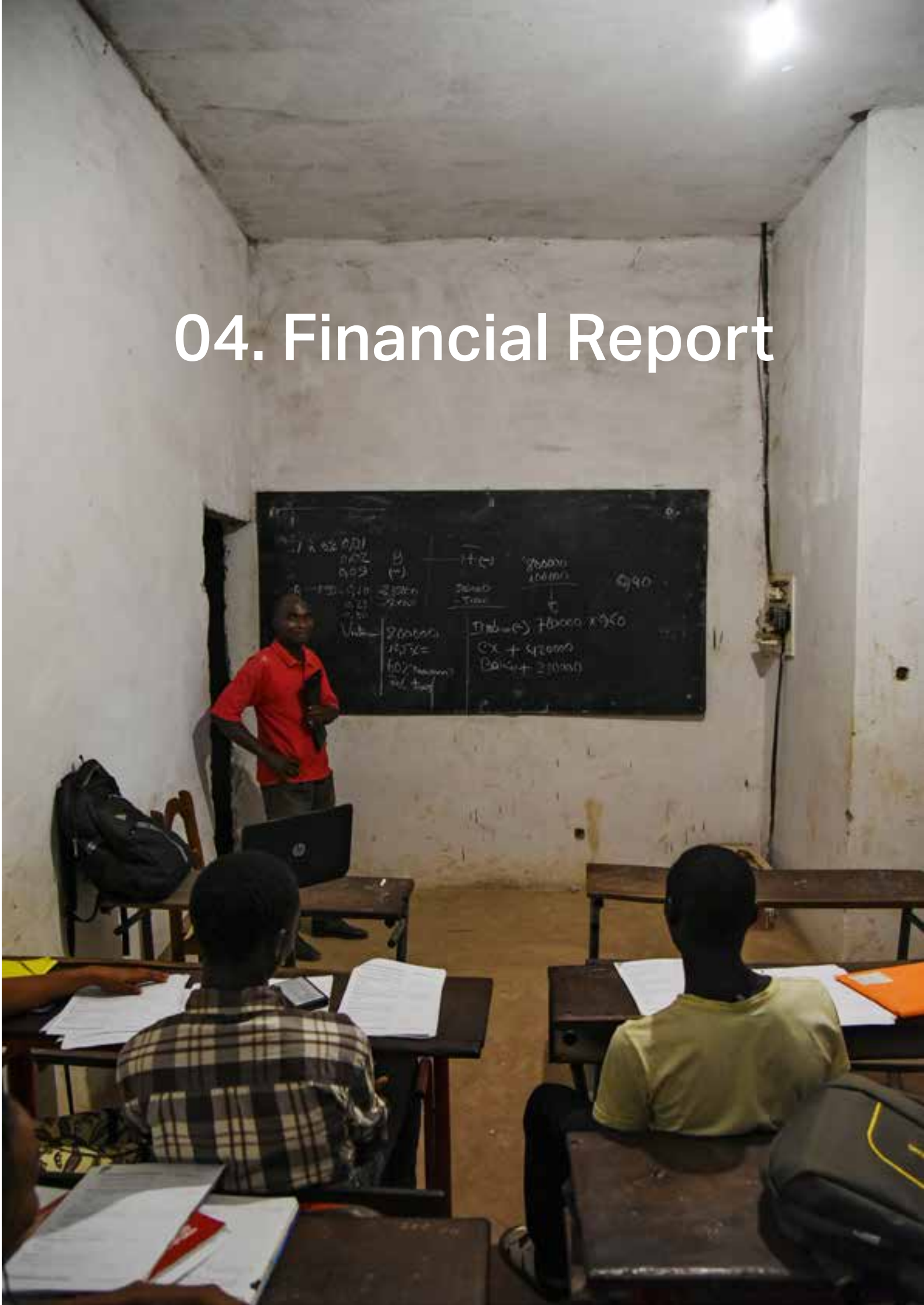
An English and a French version of the FRES 2015 Annual Report were published in June 2016 (digital and print).

We participated in the Transparency Award 2016 and obtained a Triple A rating for our Annual Report 2015 for the second time. The FRES website as well as our annual report 2015 were tested. The jury looked at social accountability for results, communication and compliance. On each component, we received the highest score (A). The Transparency Award for the best charitable reporting is awarded annually by PricewaterhouseCoopers Accountants (PwC Accountants, N.V., Netherlands).

The FRES Inter Company Staff Exchange Programme (FICSEP) led to two exchanges in 2016 between FRES Guiné-Bissau and Yeelen Kura staff, enhancing local knowhow and experience.

On behalf of FRES Ms. Caroline Nijland participated in the Stakeholder Consultation Meeting on the ‘Women and Sustainable Energy’ initiative of the EU Commission in Brussels on 7 and 8 December 2016.

04. Financial Report



Annual Accounts 2016

CONSOLIDATED BALANCE AS ON DECEMBER 31, 2016
(after appropriation of results)

	December 31, 2016		December 31, 2015	
	€		€	
Assets				
1. Fixed Assets				
1.1 Property, plant and equipment	6,612,428	6,612,428	6,534,439	6,534,439
2. Current Assets				
2.1 Receivables	1,110,464		1,038,074	
2.2 Inventory	32,610		42,746	
2.3 Securities	5,368,692		5,080,861	
2.4 Cash and cash equivalents	4,437,930		3,020,834	
		10,949,696		9,182,515
Total		17,562,124		15,716,954
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	11,621,162		9,270,644	
3.4 Reserve financing assets	1,598		1,578	
3.5 Reserve currency difference	32,182-		26,925-	
		14,840,578		12,495,297
4. Funds				
4.1 Fund Donation Nuon	85,438	85,438	748,200	748,200
		14,926,016		13,243,497
5. Current liabilities				
5.1 Payables and other accruals		2,636,108		2,473,458
Total		17,562,124		15,716,955

CONSOLIDATED INCOME STATEMENT 2016

6. Income

Income from our own fundraising	241,610	183,000	217,002
Income from our own fundraising - private persons	10,253	3,000	10,065
Income from our own fundraising - companies	231,357	180,000	206,937

Subsidies	3,028,359	2,959,000	3,313,067
Subsidies from governments	3,028,359	2,859,000	3,313,067
Other subsidies	-	100,000	-

Financial income and expenses	293,828	277,000	193,956
-------------------------------	---------	---------	---------

Other income	3,313,932	2,500,000	2,484,319
Income Yeelen Kura from regular company activities	1,739,719	1,500,000	1,403,027
Income Yeelen Kura from non-regular company activities	246,777	-	169,494
Income FRES Uganda from regular company activities	564,539	500,000	450,869
Income FRES Guiné-Bissau from regular company activities	762,897	500,000	460,929

Sum of the income	6,877,729	5,919,000	6,208,344
-------------------	-----------	-----------	-----------

7. Expenses

Spent on objectives			
Expenses for regular company activities	1,900,187	2,470,000	2,410,632
Yeelen Kura, Mali	741,795	700,000	714,525
NuRa, South Africa	15,347	60,000	13,612
Yeelen Ba, Burkina Faso	10,902	60,000	50,249
FRES Uganda, Uganda	770,404	1,200,000	1,228,965
FRES Guiné-Bissau, Guinea-Bissau	361,739	450,000	403,281

Expenses for non regular company activities	143,998	-	-
Yeelen Kura, Mali	143,998	-	-

Expenses for company expansion	2,474,176	3,350,000	2,021,884
Yeelen Kura, Mali	1,147,844	1,100,000	1,527,442
NuRa, South Africa	1,884	-	493
Yeelen Ba, Burkina Faso	161,571	100,000	108,648
FRES Uganda, Uganda	260,261	850,000	193,750
FRES Guiné-Bissau, Guinea-Bissau	895,025	1,000,000	191,551
FRES Cameroon, Cameroon	7,591	300,000	-

Expenses for replacements	75,921	230,000	103,321
Expenses Yeelen Kura replacements	55,000	100,000	36,831
Expenses Guiné-Bissau replacements	-	30,000	12,447
Expenses Uganda replacements	20,921	100,000	54,043

Expenses for new initiatives	83,352	45,000	22,641
New initiatives remaining countries	83,352	45,000	22,641

Subtotal	4,677,634	6,095,000	4,558,478
----------	-----------	-----------	-----------

CONSOLIDATED INCOME AND EXPENDITURE STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2016 (CONTINUED)

	Actual 2016 €	Budget 2016 €	Actual 2015 €
Subtotal	4,677,634	6,095,000	4,558,478
FRES service costs spent on objectives	376,772	500,000	405,456
Direct support existing companies	212,230	290,000	242,280
Direct support expansion companies	144,883	207,000	127,302
Direct support new initiatives	19,659	3,000	35,874
Total spent on objectives	5,054,406	6,595,000	4,963,934
FRES service costs management & administration	135,547	150,000	151,769
Direct costs	11,485	40,000	9,657
Indirect costs and costs from investments	124,062	110,000	142,112
Sum of the expenses	5,189,953	6,745,000	5,115,703
Result	1,687,776	826,000-	1,092,641

The budget of 2016 that is stated in the annual account of 2015 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 Yeelen Ba, Burkina Faso and NuRa, South Africa.

	Actual 2016 €	Budget 2016 €	Actual 2015 €
The result of 2016 is appropriated as follows:			
Reserve for future projects	2,350,518	826,000-	1,511,661
Reserve financing assets	20	-	833-
Fund donation Nuon	662,762-	-	418,187-
Total	1,687,776	826,000-	1,092,641

CONSOLIDATED CASH FLOW STATEMENT 2016

		2016	2015
Income from private persons, companies, institutions and governments	6,223,680		5,485,374
Payments to supplier, employees and projects	4,568,963-		3,680,889-
Cash generated from operating activities		1,654,717	1,804,485
Received interest, realised result investments and balance deposits and withdrawals investments		293,828	193,956
Cash flow from operational activities		1,948,545	1,998,441
Investments in property, plant and equipment	569,869-		967,241-
Investments subsidies	-		-
Granted loans	-		-
Cash flow from investment activities		569,869-	967,241-
Cash flow from financing activities		-	-
Cash flow		1,378,676	1,031,200
Exchange rate and conversion differences		38,420	36,672-
Net cash flow		1,417,096	994,528
Cash as on January 1		3,020,834	2,026,310
Net cash flow		1,417,096	994,528
Cash as on December 31		4,437,930	3,020,834

NOTES TO THE CONSOLIDATED ANNUAL ACCOUNTS

Activities

FRES was founded in 2004 and is registered at the Chamber of Commerce in Amsterdam. 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.

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

Group structure

In 2016 the group includes four operating companies: Yeelen Kura S.A., FRES Uganda Limited, FRES Guinée-Bissau and FRES Cameroon. FRES is the 100% owner of all these companies.

ANBI

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%

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.

In addition to the aforementioned subsidiaries, FRES has interests in the entities below. They are currently not involved in the consolidation 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 in 2016.

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 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 will be necessary in 2017.

As FRES is not a shareholder of the companies NuRa and Yeelen Ba nor has any control over these companies, these companies are not part of the consolidation and therefore the balance sheet and the income statement of these companies are not included in the annual accounts. Expenses incurred by FRES Netherlands in support of these companies are included however.

GENERAL PRINCIPLES FOR PREPARING THE CONSOLIDATED ANNUAL ACCOUNTS

General principles

The annual accounts have been prepared in accordance with the Guideline for annual reporting 650 for ‘Fundraising organisations’, as issued by the Dutch Accounting standards Board. 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. This Guideline will be applied for the annual accounts 2017. 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 2016 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.

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 deduced 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 and SSD	Installations and materials Yeelen Kura and SSD	Computers, software and office equipment	Total
Historical cost	-	2,256,163	527,586	8,479,904	21,986	11,285,638
Accumulated depreciation and impairments	-	801,433	114,641	3,814,718	20,408	4,751,200
Balance as on January 1	-	1,454,730	412,945	4,665,186	1,578	6,534,439
Movements						
Investments/disposal	-	292,866	24,366-	300,501	868	569,869
Received subsidies and gifts	-	-	-	-	-	-
Exchange differences	-	43,675-	-	-	-	43,675-
Depreciation	-	145,968	10,877	290,511	848	448,204
Total movements	-	103,223	35,243-	9,990	20	77,990
Historical cost	-	2,505,354	503,220	8,780,404	22,854	11,811,832
Accumulated depreciation and impairments	-	947,401	125,518	4,105,229	21,256	5,199,404
Balance as on December 31	-	1,557,953	377,702	4,675,175	1,598	6,612,428

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

Yeelen Kura disinvested the mini-grid in Bla expropriated by the government representing Eur 128 879.

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

2.1 Receivables	31-12-2016		31-12-2015	
	Total	> 1 year	Total	> 1 year
Receivables Yeelen Kura	308,658		297,167	
Receivables FRES Uganda	201,851		100,508	
Receivables FRES Guiné-Bissau	334,605		139,130	
Subsidies Worldbank/Goverment FRES Uganda	-		105,222	
Subsidies Nuon/EU Burkina Faso	-		206,961	
Prepayments FRES	73,448		3,383	
Prepayments FRES Uganda	5,012		5,751	
Other receivables and accrued income FRES	52,814		166,013	
Other receivables and accrued income Yeelen Kura	10,178		5,015	
Other receivables and accrued income Uganda	1,684		-	
Other receivables and accrued income FRES Guiné-Bissau	122,214		8,924	
Total	1,110,464	-	1,038,074	-

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.

The other receivables and accrued income FRES consist of two expected payments, one by Yeelen Kura to FRES of €76,225 and one by FRES Uganda of €12,470, donations from N.V. Nuon Energy customers (€10,887) for the second half of 2016 that had yet to be received on the balance date as well as the 2016 interest that had yet to be received at the end of 2016.

2.2 Securities	2016	2015
Shares	2,833,548	2,564,935
Bonds	2,512,688	2,487,060
Increased coupon interest bonds	22,456	28,866
Total	5,368,692	5,080,861

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. The return on the securities amounted to 5.9% in 2016 (6.3% in 2015). The FRES Board evaluated the investment policy in 2016 and decided not to make any changes to the existing investment policy.

2.3 Cash and cash equivalents	2016	2015
ING Bank	107,907	24,105
ING Bank, investment	5,762	2,534
ING Bank, savings	4,008,804	2,750,857
ASN Bank	493	488
Bank credits Yeelen Kura	200,951	149,542
Bank credits FRES Uganda	15,122	46,796
Bank credits FRES GNB	96,897	45,986
Cash	1,994	526
Total	4,437,930	3,020,834

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 2016 (€1,257,947) in comparison to 2015 is due to transfers from the operational account of advanced payments that FRES has received from donors (EU / EEP and OFID) for the running projects while some planned project investments for 2016 have been delayed to 2017. This and other cash equivalents are available and being utilised for the operational activities and objectives of FRES.

3. Reserves	2016	2015
3.1 Continuity reserve FRES Netherlands		
This 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 NL for a period of six months.		
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	2016	2015
This reserve is intended to ensure that FRES main-tains 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.		
Balance as on Jan 1	748,200	1,166,387
Appropriation of results	662,762-	418,187-
Balance as on Dec 31	85,438	748,200

	2016	2015
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	2016	2015
This reserve is based on appropriation of results and is for the benefit of new projects that have not yet been planned and committed.		

	2016	2015
Balance as on Jan 1	9,270,644	7,758,982
Appropriation of results	2,350,518	1,511,662
Balance as on Dec 31	11,621,162	9,270,644

3.4 Reserve financing assets	2016	2015
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 guide-line is not applicable to Yeelen Kura, FRES Uganda and FRES Guiné-Bissau, the amount of tangible fixed assets of these companies has not been included in the reserve.		

	2016	2015
Balance as on Jan 1	1,578	2,411
Appropriation of results	20	833-
Balance as on Dec 31	1,598	1,578

3.5 Currency difference	2016	2015
Balance as on Jan 1	26,921-	9,751
Appropriation of results	5,261-	36,672-
Balance as on Dec 31	32,182-	26,921-

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

4. Funds

4.1 Funds Donation Nuon

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

5. Payables and other accruals	2016	2015
All payables and other accruals mentioned below fall due in less than one year. The fair value of the paya-bles and other accruals approximates the book value due to their short-term character. The financial obli-gations towards FRES companies are funds that FRES holds for FRES Companies to pay for future replace-ment investments.		
Creditors FRES NL	17,913	12,058
Other payables:		
Yeelen Kura	2,055,257	2,106,133
FRES Uganda	383,967	201,866
FRES Guinea-Bissau	116,151	27,084
Other payables FRES	62,819	126,317
Total	2,636,107	2,473,458

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 rent can be terminated annually with a notice period of 3 months before year-end.

FRES lodged in 2015 a high court appeal in the ongoing court case with DGIS (Directorate General for International Cooperation, part of the Dutch Ministry of foreign Affairs), following unsuccessful outcome of lower court decisions. In 2016 the high court ruled not in favor of FRES. There are no (financial) conse-quences other than legal expenses and time spent by FRES personnel for FRES as no receivable was recog-nised in prior years.

FRES	Part 4	68	FRES	Financial Report	69
NOTES TO THE CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE					
General The donations relate to income from own fundraising activities.					
Continuity of the activities In 2016, new SHS systems were purchased to connect new customers in Mali, Uganda and Guinea Bissau. A total of 833 new customers were connected in 2016.					
6. Income and expenses					
6.1 Income Income from own fundraising – private persons					
	2016	2015			
Donation Christmas gift employees Nuon	6,956	2,580			
Donation rent office		3,600			
Private donations	3,297	3,885			
Total	10,253	10,065			
Income from own fundraising - companies (Donations)					
	2016	2015			
Payroll costs Alliander for Director Business Dev.	130,470	114,000			
Alliander office expenses	80,000	75,000			
Nuon savings campaign	10,887	16,937			
Other donations	10,000	1,000			
Total	231,357	206,937			
Subsidies from governments (Project financing)					
	2016	2015			
EU Burkina Faso	-	157,354			
EU Guinea-Bissau	-	652,097			
Fragile States Mali	-	1,316,689			
EU Regional	2,581,367	1,036,927			
EEP Uganda	310,467	150,000			
OFID Guinea-Bissau	136,525	-			
Total	3,028,359	3,313,067			
Specification from the EU Regional subsidy (Project financing)					
	2016	2015			
EU Regional Mali	877,665	352,555			
EU Regional Uganda	671,155	269,601			
EU Regional GNB	387,205	155,539			
EU Regional Cameroon	645,342	259,232			
Total	2,581,367	1,036,927			
Financial income and expenses					
	2016	2015			
Interest bank	34,882-	125,490-			
Result interest bonds	6,411-	8,484-			
Dividends	103,241	106,020			
Realised gains/losses shares & bonds	5,572-	51,333			
Unrealised gains/losses shares	185,297	178,787			
Unrealised gains/losses bonds	52,155	8,210-			
Total	293,828	193,956			
The net return on these investments in securities and cash equivalents has been accounted for under the financial income and expenses. The above-mentioned return of €293,828 included an amount of €-5,572 realised results on the investments. The return is higher than realised in 2015 due to more favourable interest rates.					
Cash equivalents were kept on the current account and deposit account at credit institutions with at least an “A” credit rating.					
Other income					
	2016	2015			
Income Yeelen Kura ¹	1,739,719	1,403,027			
Income Yeelen Kura ²	246,777	169,494			
Income FRES Uganda ¹	564,539	450,869			
Income FRES GNB ²	762,897	460,929			
Total	3,313,932	2,484,319			
¹ From regular company activities					
² From non-regular company activities					
6.2 Comparison actual versus budgeted					
Comparison Actual 2016 versus Budget 2016 Differences between the actual results of income and expenses and the budget are analysed below.					
NuRa and Yeelen Ba are not part of this consolidation as FRES is not shareholder of these companies nor has any control and therefore the income and expenses of these companies are not included in the present annual account. Expenses incurred by FRES Netherlands in support of these companies are included however.					
ACTUAL VERSUS BUDGET 2016 - INCOME					
Income from our own fundraising – companies Alliander donated pay-roll costs and €80,000 for office expenses.					
Income from Subsidies					
Subsidies from Governments Actual subsidies from governments were slightly higher than budgeted because FRES received slightly more advance payments than estimated under committed contracts.					
Project financing EU Guinea-Bissau: the contract has been extended until the 31st of May 2017. No amount has been received in 2016 as last payment will be provided after evaluation and finalisation of the EU contract.					
Project financing World Bank/Government Uganda: no amount has been received in 2016. Negotiations for payment are still going on but decision process at government level is lagging behind.					
Project financing Fragile States Mali: FRES has not requested pre-financing for 2016 since FRES did not completely spend the former pre-financing amount.					
Project financing EU regional: FRES received the second pre-financing amount as agreed in the contract which was used for purchasing Solar Home Systems. Further specifications per country can be found in the related table ‘Specification from the EU Regional subsidy’.					
Project financing EEP Uganda: FRES received the second and third payment from EEP as agreed in the contract. This was used as co-financing for purchasing Solar Home Systems.					
Project financing FRES Guiné-Bissau (OFID), Guinea-Bissau: a first payment has been received in 2016 to finance part of the solar plant project in Contuboel.					
Other subsidies Return on investments in securities and cash The return on investments was €293,828 it is slightly higher than budgeted, due to more favourable interest rate.					
Other income					
Income Companies – regular company activities Income Yeelen Kura: The stated income of Yeelen Kura is higher than budgeted because the budget did not include disbursements of activated investment subsidies and the consolidation corrections regarding these subsidies.					
Income FRES Uganda: The income of FRES Uganda is higher than budgeted because the budget did not include disbursements of activated investment subsidies and the consolidation corrections regarding these subsidies.					
Income FRES Guiné-Bissau: The stated income of FRES Guiné-Bissau is higher than budgeted. The budget did not include disbursements of activated investment subsidies and the consolidation corrections regarding these subsidies. If these are excluded, the income of FRES Guiné-Bissau is higher than budgeted because it had a strong customer increase.					
Income Companies – non- regular company activities Income Yeelen Kura: it is the compensation that the Government of Mali paid for the expropriation of the diesel mini-grid Bla in June 2016.					
ACTUAL VERSUS BUDGET 2016 - SPENT ON OBJECTIVES					
Expenses for regular company activities These expenses include the costs incurred for the operational activities of the companies.					
Yeelen Kura, Mali: the expenses for regular activities of Yeelen Kura are within budget.					
NuRa, South Africa: the expenses for regular activities consist fully of travel expenses by FRES employees supporting NuRa.					
Yeelen Ba, Burkina Faso: the expenses consist of advance payments paid by FRES to Yeelen Ba to support the regular operations and costs made for the evaluation and audit to conclude the EU project in Burkina Faso.					
FRES Uganda, Uganda: the expenses for regular activities are within budget.					
FRES Guiné-Bissau, Guinea-Bissau: costs are within budget.					
Expenses for non-regular company activities The costs are related to the expropriation of Bla.					
Expenses for company expansions Yeelen Kura, Mali: Expenses were far lower than the budget as investment for a solar plant was put on hold during the Bla expropriation process and postponed for 2017.					
NuRa, South Africa: NuRa covered the expenses of EUR 238K for connecting new customers essentially from the SA government subsidies.					
Yeelen Ba, Burkina Faso: No budget for expansion was established for Yeelen Ba in 2016 since no new subsidies were available for new SHS. However, some new purchases for a proper service of the clients with LED lamps, batteries and GPS were made.					

FRES Uganda, Uganda: The actuals are lower than budgeted as FRES Uganda was struggling finding new customers in the first half of 2016. After a new sales campaign, customer growth resumed in the second half of the year.

FRES Guiné-Bissau, Guinea-Bissau: The expenses are lower than budgeted because investments were delayed by 5 months due to customs clearance issues in Guinea-Bissau, a result of the unstable political situation in the country.

FRES Cameroon: the company has not started operations in Cameroon. FRES was still in a negotiation process to start the company in Cameroon. As per 11 April 2017 FRES has decided to halt the process of setting up its operations in Cameroon.

Expenses for replacements

Yeelen Kura, Mali: the expenses concern the maintenance of the mini-grid.

Fres Uganda: the expenses concern the replacement of lamps and batteries.

FRES service costs

The total service costs amounted to €512,319 (€376,772 spent on objectives and €135,547 spent on management and administration). The actuals are lower than the budget of €650,000 because more personnel costs could be charged to subsidised projects.

A time allocation system is being used to allocate the service costs. The number of FTEs as of December 31 2016 was 4.8 FTE (2015: 4.7 FTE). Including one freelancer who worked for FRES the number of FTEs amounted to 5.8 FTEs on Dec. 31 2016 (2015: 6.2 FTE).

6.3 Short term financial sustainability

	Income (cash)	Operating and replacement costs
Yeelen Kura	774,337	588,847
NuRa	1,025,998	1,323,586
Yeelen Ba	281,633	212,398
FRES Uganda	591,005	530,844
FRES Guiné- Bissau	551,762	314,077

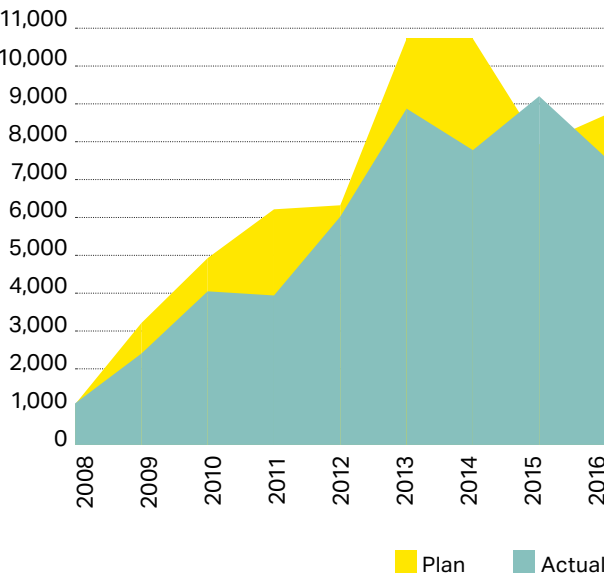
The financial sustainability of the FRES companies is determined by their ability to generate sufficient revenues to cover the expenses for regular operations and replacement of assets in due course of time; the latter exclude direct write-offs and once-off expenses that are included in the statement of expenditure. Yeelen Kura, Yeelen Ba, FRES Uganda and FRES Guiné-Bissau revenues were sufficient to cover the costs. NuRa

needs to reduce its base of non-paying customers to generate more income at lesser cost.

6.4 Other notes

Multi-year expense overview

The graph shown below displays the level of the expenses in the past 5 years.



In 2016 actuals are lower than planned and lower than in 2015 because FRES decided early 2016 to focus on consolidating its activities in the FRES companies and improving operation performance before expanding further.

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

The percentage of expenditures spent on objectives amounted to 97% in 2016 (2015: 97%). This percentage is calculated as follows: the total of the expenses spent on the objectives divided by the sum of the expenditures.

The percentage is so high, and the overhead percentage is so low, because many volunteers including board members and commissioners execute their activities on a pro bono basis. The percentage of expenditures spent on management and administration therefore amounts to 3%.

Percentage of income spent on objectives

The percentage of income spent on objectives amounted to 74% for 2016 (2015: 80%) because the staff costs were lower in 2016 and the revenues higher.

This percentage is calculated as follows: the total of the expenses spent on the objectives divided by the income, received in 2016. These incomes do not include transfers from reserves that were spent on activities in 2016.

Loans

In 2016 and previous years, FRES Netherlands issued several loans to FRES companies. Most of these loans were later converted by the FRES Board into gifts.

The outstanding amount on loans issued by FRES Netherlands is indicated below:

Loans to FRES companies		2016
Total		10,142,017

Remuneration Board members

The remuneration of the Supervisory Board members and FRES Board members amounted to €0 in 2016 (2015: €0). No loans, advances or guarantees were issued to Board members. No employment contract exists between FRES and the Board members.

FOUNDATION BALANCE SHEET AS ON DECEMBER 31, 2016
(after appropriation of results)

	December 31, 2016		December 31, 2015	
	€		€	
Assets				
1. Non-current Assets				
1.1 Property, plant and equipment	1,598		1,578	
1.2 Financial assets	5,931,362		5,424,018	
		5,932,960		5,425,596
2. Current Assets				
2.1 Receivables	126,262			
2.2 Securities	5,368,692		376,357	
2.3 Cash and cash equivalents	4,124,960		5,080,861	
		9,619,914	2,778,510	8,235,728
Total		15,552,874		13,661,324
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	
			9,270,643	
3.3 Reserve for future projects	11,621,162		1,578	
3.4 Reserve financing assets	1,598		-26,922	
3.5 Reserve currency difference	-32,182			
		14,840,578		12,495,299
4. Funds				
4.1 Fund Donation Nuon	85,438			
		85,438	748,200	748,200
		14,926,014		13,243,499
5. Current liabilities				
5.1 Payables and other accruals		626,860		417,825
Total		15,552,874		13,661,324

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 Guideline for annual reporting 650 for ‘Fundraising Organisations’, as issued by the Dutch Foundation for Annual Reporting. 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 56 to page 65.

Financial assets

Other receivables

Other receivables disclosed under financial fixed assets include issued loans and other receivables that will be held to their maturity date. These receivables are initially measured at actual value, and subsequently valued at amortised costs. Impairment losses are deducted from the amortised costs and included in the income statement.

FOUNDATION’S STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED DECEMBER 2016

	Actual 2016	Budget 2016	Actual 2015
	€	€	€
6. Income			
6.1 Income from our own fundraising	241,610	183,000	217,002
6.2 Subsidies	3,028,359	2,159,000	3,313,067
Sum of the income	3,269,969	2,342,000	3,530,069
7. Expenses			
Spent on objectives (consolidated budget)	1,622,161	6,095,000	1,920,040
FRES service costs spent on objectives			
Direct support existing companies	212,230	290,000	242,280
Direct support company expansions	144,883	207,000	127,302
Direct support new initiatives	19,659	3,000	35,874
Fres service costs management & administration			
Direct costs	11,485	40,000	9,657
Indirect costs and costs from investments	124,062	110,000	142,112
Sum of the expenses	2,134,480	6,745,000	2,477,265
Subtotal	1,135,489	4,403,000-	1,052,804
Financial income	291,028	247,000	291,746
Result subsidiary Yeelen Kura	350,359	85,000-	256,083
Result subsidiary FRES Uganda	359,707-	110,000-	623,530-
Result subsidiary FRES Guiné-Bissau	270,607	140,000	115,538
Result	1,687,776	4,211,000-	1,092,641

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.

NOTES TO THE BALANCE SHEET ITEMS

Financial assets

The movement of the investments in subsidiaries during 2016 is as follows:

	2016	2015
Balance as on Jan 1	5,424,018	5,712,599
Capital expenditure	251,342	-
Currency difference	5,257-	36,672-
Result subsidiaries	261,259	251,909-
Balance as on Dec 31	5,931,362	5,424,018

Other notes to the foundation’s balance sheet

For the other notes, we refer to the notes on the consolidated balance sheet items 2016.

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 Guiné-Bissau	FRES Uganda	Yeelen Kura. Mali	NuRa, South Africa
Expenditures							
Subsidies and contributions	28,497	15,347	10,902	64,481	132,799-	421,081	1,884
Remittances							
Purchases and acquisitions							
Outsourced work							
Publicity and communication	2,608	3,300	2,104	3,775	2,553	3,323	921
Personnel expenses	30,966	39,177	24,980	44,817	30,313	39,445	10,935
Accommodation expenses	3,271	4,138	2,638	4,734	3,202	4,166	1,155
Office and general expenses	2,941	3,721	2,373	4,257	2,879	3,747	1,039
Depreciation and interest	1,185-	1,500-	956-	1,716-	1,160-	1,510-	419-
Total	67,098 3,1%	64,184 3,0%	42,041 2,0%	120,348 5,6%	95,012- -4,5%	470,252 22,0%	15,516 0,7%

The subsidies and contributions actuals of €1,666,161 represents the costs made by FRES NL which excludes €3,055,473 spent by operating companies. The total of €4,667,634 compares with the budget of €6,095,000.

The expenses for publicity and communication were lower than in 2015 because in 2015 we had contractor costs paid to renew the FRES website.

The allocation of the expenses to the activities, as they were presented in the consolidated income statement, occurs through a time allocation system.

The expenses for fundraising amounted to a total of €55,424 in 2016. At FRES, the expenses for fund-raising mainly consist of the costs that are made for attracting new funds such as travels to donors, par-

ticipation in conferences and seminars including partially the salary of the business developers. The expenses for fundraising amount to 1.7% of the acquired funds.

Post Balance Sheet Events

As from 4 January 2017, FRES acquired all shares of Yeelen Ba from NV Nuon Duurzame Energie and Yeelen Kura for an amount of EUR 1. Yeelen Ba is a company that is active in Burkina Faso and has 3,150 customers at the date of this report. In 2016 and prior years, FRES already managed the operational activities of Yeelen Ba on behalf of NV Nuon Duurzame Energie. As from the acquisition date, Yeelen Ba will be included in the consolidation of the group. The Board is currently assessing the impact of the purchase price allocation with respect to this acquisition.

Yeelen Ba, Burkina Faso	FRES Guiné-Bissau	FRES Uganda	Cameroon	New initiatives	Mgmt. and admin.	Total 2016	Budgeted 2016	Total 2015
161,571	699,993	260,261	7,591	83,352		1,622,161	6,095,000	1,920,040
						-	-	-
						-	-	-
						-	-	-
856	3,161	1,529	1,328	-	9,161	34,620	43,924	110,018
10,168	37,527	18,149	15,771	-	108,737	410,987	521,436	396,635
1,074	3,964	1,917	1,666	-	11,485	43,409	55,075	35,457
966	3,564	1,724	1,498	-	10,328	39,037	49,528	49,058
389-	1,437-	695-	604-	-	4,163-	15,734-	(19,962)	33,942-
174,246 8,2%	746,773 35,0%	282,885 13,3%	27,250 1,3%	83,352 3,9%	135,548 6,4%	2,134,478 100%	6,745,000	2,477,264

The Minister of Energy in Mali has announced that Yeelen Kura needs to transfer mini-grids of 5 villages to EDM, the national operator. FRES is awaiting further details on the timeline of the transfer, but expects the transfer will be completed early 2018. 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 have been recognised in 2016.

Paul Hol was elected the 26th of January 2017 by the Supervisory Board of FRES as new member of the Supervisory Board of FRES.

Amsterdam, 15 November 2017

Board FRES

Annemarie Goedmakers
Serge Leijten
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 2016

The annual accounts 2016 were adopted in a Board meeting held on 6th of November 2016, and were approved by the Supervisory Board on 15th of November 2017.

Changes in the Supervisory Board

After approval of the annual accounts 2015, Mr. Aad Veenman resigned on 30th of April 2016 after 6.5 years as chairman of the Supervisory Board during the meeting of 29 April 2016. Mr. Peter Smink, member, is the new chairman. Wim Sinke was elected the 12th of December 2016 by the Supervisory Board of FRES as new member of the Supervisory Board.

Proposed appropriation of results 2016

For the proposed appropriation of the results 2016 amounting to €1,687,776, we refer to the overview below.

	Balance as on Jan 1, 2016	Appropriation of results 2016	Balance as on Dec 31, 2016
Continuity reserve FRES Netherlands	250,000	-	250,000
Reserve for pre-financing future investments			
FRES Companies	3,000,000	-	3,000,000
Reserve for future projects	9,270,643	2,350,518	11,621,161
Reserve financing assets	1,578	20	1,598
Fund Donation Nuon	748,200	662,762-	85,438
Total	13,270,421	1,687,776	14,958,197

Independent auditor’s report

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

REPORT ON THE ANNUAL ACCOUNTS 2016

Our opinion

In our opinion Stichting Rural Energy Services’s annual accounts give a true and fair view of the financial position of the Group as at 31 December 2016, 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 2016 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 annual accounts.

The annual accounts comprise:

- the consolidated and foundation balance sheet as at 31 December 2016;
- the consolidated and foundation statement of income and expenditure for the year then ended; 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 all 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 Guideline for annual reporting 650 ‘Charity organisations’ of the Dutch Accounting Standards Board. 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 irregularities, including 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.

Rotterdam, 15 November 2017
PricewaterhouseCoopers Accountants N.V.

J. van Hoof RA

APPENDIX TO OUR AUDITOR’S REPORT ON THE ANNUAL ACCOUNTS 2016 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.

05. Outlook 2017

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. FRES has signed contracts with donors to expand in 2017-2018 by connecting 7,300 new customers. In line with the Business Plan 2017-2021, 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

Yeelen Kura will expand its customer base in 2017-2018 with 1,500 new customers. In 2017, Yeelen Kura will seek clarity from the relevant governmental agencies regarding concession agreements for mini-grid installations to gain the confidence needed for investments. Yeelen Kura will continue negotiations with authorities for higher tariffs for mini-grids. The pilot schemes for remote long-range switching and pre-payment systems as well as battery regeneration will be finalised in 2017. Yeelen Kura will pursue the testing of new battery technology when purchasing new batteries.

NuRa in South Africa

Strategic reorientation, review and re-evaluation of the company will be needed to increase customer retention, reach higher payment rates and reverse the trend of increasing operating costs. NuRa must improve the customer care services by scrutinising current business processes and removing obstacles that are in the way of good and expedient services.

FRES Uganda

FRES Uganda will strive to improve its long-term financial sustainability by implementing new marketing strategies to increase its scale of operation and by applying new fee collection methods to achieve higher payment rates. The customer base in 2017-2018 will be expanded by 1,800.

Yeelen Ba in Burkina Faso

Yeelen Ba will enhance its performance with a fixed customer base of 3,500 while improving payment rates and reducing costs. With use of repossessed SHS equipment 200 customers will be connected in 2017. Yeelen Ba will continue to pursue funding opportunities for expansion between 2017-2021.

FRES Guinée-Bissau

FRES Guinée-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. FRES Guinée-Bissau will expand its SHS customer base in 2017 with 1,500 and start operations of the 1st solar mini-grid.

New initiatives

FRES will start operations in Cameroon in 2017 if acceptable terms and conditions can be negotiated with the Cameroonian authorities. These include approval, permits, licences and custom duties exemptions comparable to those of other FRES companies. Negotiations have been ongoing since 2015 and can hopefully be concluded in the coming year.

If FRES Cameroon becomes operational in 2017, the activities will include the recruitment of a local management team, procurement of the first batch of Solar Home Systems, contracting the first customers, and providing them electricity services.

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. The pilot with 100 units of remotely controlled switching systems, using the so-called 'Cobrador' in Mali and Guinea-Bissau, will be evaluated over the course of 2017.

The results of the battery regeneration pilot in Mali, which will be concluded in 2017, will be analysed to assess life-extension opportunities for the existing mini-grid batteries. The idea of the pilot is to assess the applicability of such new technologies under the circumstances in which the FRES companies operate with the goal to reduce battery life-cycle cost. FRES will contact companies that specialise in this new technology to form partnerships and 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, thereby strengthening the basis for sound expansion over the coming years.

Organisation
The recommendations of the operational review conducted in late 2015 were implemented in 2016. The clearer chain of command is meant to improve effectiveness and efficiency of the organisation in 2017.

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 the development of new customer services.

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.

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 results from 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. Our customer growth targets are 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 annual report will remain instruments to achieve this goal.

Objectives 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 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 increase in 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 will be performed to strengthen the governance of our companies.

2. Cost efficiency at FRES Netherlands
Cost efficiencies are expected to be achieved by updating the current ICT system.

3. Strengthening strategic partnerships
FRES strives to sign one new agreement for partnership and cooperation with a new donor.

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

5. Reducing network loss in mini-grids
FRES will continue its strategic cooperation with Alliander in Yeelen Kura in the mini-grid network improvement programme. In 2017 Alliander will assist FRES to verify the results of improvements implemented in the last two years and define the next steps.

6. Enhanced knowledge exchange and standardisation between FRES companies.
FRES will continue to facilitate intercompany 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.

Operating account 2017

CONSOLIDATED INCOME	Budget 2017	Budget 2016	Actuals 2016
Income from own fund- fundraising	212,000	183,000	241,610
Income from fundraising -Companies	200,000	180,000	231,357
Income from fundraising -Private persons	12,000	3,000	10,253
Subsidies group companies (committed)	3,431,000	2,859,000	3,028,359
Yeelen Kura,Mali (EU Regional)	581,000	600,000	877,665
Yeelen Kura, Mali (EU Fragile States)	600,000	-	-
FRES Uganda (EU regional)	581,000	700,000	671,155
FRES Uganda (EEP)	150,000	300,000	310,467
FRES Uganda (Wordbank/REA)	20,000	50,000	-
Yeelen Ba, Burkina Faso (EU/Nuon)	-	209,000	-
FRES Guiné-Bissau (EU GB and EU reg)	818,000	700,000	387,205
FRES Guiné-Bissau (OFID)	100,000	100,000	136,525
FRES Cameroon (EU Regional)	581,000	200,000	645,342
Subsidies group companies (non committed)	100,000	100,000	-
FRES Guiné-Bissau (UNIDO and ECREEE)	100,000	100,000	-
Income from group companies operating activities	2,300,000	2,500,000	3,313,932
Yeelen Kura, Mali	1,200,000	1,500,000	1,986,496
FRES Uganda, Uganda	600,000	500,000	564,539
FRES Guiné-Bissau, Guinea Bissau	500,000	500,000	762,897
Return on investments in funds	302,000	277,000	293,828
Financial costs	2,000	2,000	34,882-
Financial income	150,000	125,000	96,830
(Un)realised gains/losses shares and bonds	150,000	150,000	231,880
Transfer from own reserves and funds	615,000	516,000	1,346,067-
Transfer from / to own reserves	615,000	516,000	1,346,067-
Total consolidated income	6,960,000	6,435,000	5,531,662
NON CONSOLIDATED INCOME			
Subsidies group companies (committed)	-	800,000	-
NuRa, South Africa (DOE)	-	800,000	-
Income from group companies operating activities	1,450,000	1,460,000	1,493,222
NuRa, South Africa	1,200,000	1,200,000	1,334,642
Yeelen Ba, Burkina Faso	250,000	260,000	158,580
Net cashflow from subsidiaries consolidated and non-consolidated	15,000	-	-
Total non consolidated income	1,465,000	2,260,000	1,493,222
SUM OF THE INCOME	8,425,000	8,695,000	7,024,884

NOTES ON INCOME 2017

CONSOLIDATED INCOME

Income from own fund fundraising

This consists of donation from Alliander for Office Expenses and the payroll costs for the General Director.

Subsidies group companies (committed)

The budget is based on the contractual agreements that are in place.

Yeelen Kura, Mali (EU Regional and Fragile States): FRES will receive an advance payment of approx. €1.181 000 from the EU regional program for expansion with new customers.

FRES Uganda, Uganda (EU and EEP): FRES will receive an advance payment of €731.000 for expansion new clients from the EU regional program and EEP.

FRES Uganda, Uganda (Worldbank/REA): The subsidy programme under ERTII with the government of Uganda/World Bank is exhausted. We are in negotiation with REA to receive a late payment of €20.000 regarding a delayed unpaid subsidy amount from 2013 from the ERTII program. No new subsidy is expected in 2017 from the government of Uganda.

Yeelen Ba, Burkina Faso (EU/Nuon): There will be no subsidies in 2017 as the project has ended in 2015 .

FRES Guiné-Bissau, Guinea-Bissau (EU/EU regional): An advance payment of €818.000 is scheduled to be received in 2017 from the EU regional budget and EU Guinee Bissau.

FRES Guiné-Bissau, Guinea-Bissau (OFID): OFID is contributing €100. 000 as third payment to the solar mini-grid in Contibuel implemented in 2016-2017.

Subsidies (non-committed)

FRES Guiné-Bissau, Guinea-Bissau (EU): FRES expects to obtain the delayed approval of a subsidy in 2017 from ECREEE/UNIDO for the expansion of the solar mini-grid in Contibuel as soon as UNIDO signs a subsidy agreement with the government of GB.

Income from group companies operating activities

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

Yeelen Kura, FRES Uganda and FRES Guiné-Bissau: for Uganda and Fres Guine-Bissau, there is only a slight increase in income expected thanks to an increased numbers of customers but at the same time these companies are faced with low payment rates. Regarding Yeelen Kura, the transfer of Bla has impacted the revenues level of 2016 as it lost clients. So the revenues budgetted for 2017 are lower than the revenues budgetted in 2016.

Transfer from own reserves and funds

We expect a transfer of €615.000 in 2017 from our own reserves.

NON CONSOLIDATED INCOME

These consolidated income are not included in the audited annual accounts of FRES. Sources of data are from the local audited accounts and the monthly financial report of Nura.

Subsidies group companies non-consolidated (committed)

NuRa, South Africa (DOE): Nura is expecting the last amount of committed subsidy in 2017 that was not transferred by the DOE in 2016.

Income from group companies operating activities non consolidated

The income level of NuRa is expected to remain in 2017 at the same level as budgetted in 2016 as there is no growth expected and the company is cleaning the customer base and therefore will loose more clients.

CONSOLIDATED EXPENSES	Budget 2017	Budget 2016	Actuals 2016
Expenses for group companies' operational activities (excl depreciations and provisions)	1,720,000	2,470,000	1,900,187
Yeelen Kura, Mali	750,000	700,000	741,795
FRES Uganda, Uganda	500,000	1,200,000	770,404
FRES Guiné-Bissau, Guinea Bissau	400,000	450,000	361,739
NuRa, South-Africa (costs in NL)	70,000	60,000	15,347
Yeelen Ba, Burkina Faso (costs in NL)		60,000	10,902
Expenses group companies' non operational activities	-	-	143,998
Yeelen Kura, Mali	-	-	143,998
Expenses for replacements and reinstallations	270,000	230,000	75,921
Yeelen Kura, Mali	150,000	100,000	55,000
FRES Uganda, Uganda	70,000	100,000	20,921
FRES Guine-Bissau, Guinea Bissau	50,000	30,000	-
Expenses for expansion of group companies	3,950,000	3,250,000	2,310,721
Yeelen Kura, Mali	1,600,000	1,100,000	1,147,844
FRES Uganda, Uganda	600,000	850,000	260,261
FRES Guiné-Bissau, Guinea Bissau	750,000	1,000,000	895,025
FRES Cameroon, Cameroon	1,000,000	300,000	7,591
Expenses for new initiatives	45,000	45,000	83,352
FRES Service costs (spent on objectives)	535,150	500,000	376,772
Direct support existing companies	310,387	290,000	212,230
Direct support expansion of companies	221,552	207,000	144,883
Direct support new initiatives	3,211	3,000	19,659
FRES Service costs (management and administration)	159,850	150,000	135,547
Direct costs	43,160	40,000	11,485
Indirect costs	116,690	110,000	124,062
Total consolidated expenses	6,680,000	6,645,000	5,026,498
Expenses for group companies' operational activities non consolidated (excl depreciations and provisions)	1,320,000	1,250,000	1,607,296
NuRa, South-Africa	1,070,000	1,000,000	1,406,517
Yeelen Ba, Burkina Faso	250,000	250,000	200,779
Expenses for replacements and reinstallations of group companies non consolidated	425,000	550,000	389,206
NuRa, South-Africa	350,000	300,000	227,635
Yeelen Ba, Burkina Faso	75,000	250,000	161,571
Expenses for expansion of group companies NuRa, South-Africa	-	250,000	1,884
Yeelen Ba, Burkina Faso	-	-	-
Total non consolidated expenses	1,745,000	2,050,000	1,998,386
Sum of the expenses	8,425,000	8,695,000	7,024,884

NOTES ON EXPENSES 2017	
CONSOLIDATED EXPENSES	
Expenses for group companies' operational activities (excl. depreciation and provisions)	
These expenditures concern the expenses that are made for operational activities in FRES companies.	FRES Cameroon, Cameroon: An investment of €1.000.000 is planned for the start-up phase pending the approval of authorisation and exemption and the capital costs of 2000 SHS for 2018.
Yeelen Kura, Mali: This increase is due to potential increase staff and mini grid operations.	FRES service costs FRES budgetted service costs in 2017 will be slightly higher than actual service costs in 2016 due to additional costs such as purchase of IT database solution for FRES NL and staff restructuring of the FRES organisation in the Netherlands.
FRES Uganda, Uganda: The difference between the budget 2016 and 2017 are due to direct write-offs of some parts of the SHS that were integrated in 2016.	Non consolidated expenses These consolidated expenses are not included in the audited annual accounts of FRES. Sources of data are from the local audited accounts of Yeelen Ba and Nura and the monthly financial report of NuRa.
FRES Guiné-Bissau, Guinea-Bissau: The expenses in 2017 are reduced compared to the budget 2016 due to efficient costs management.	Expenses for group companies' operational activities non consolidated NuRa, South-Africa: Expenses in 2017 will be lower than actuals in 2016 due to restructuring of the organisation as a result of the turnaround activities.
Expenses for replacement of group companies	Yeelen Ba, Burkina Faso: The budgetted expenses will remain at the same level as Actuals 2016 as no expansion is expected.
Yeelen Kura, Mali: concerns the expenses for replacement of SHS parts and maintenance of the mini-grid networks and removal of systems of cancelled clients.	Expenses for replacements of group companies non consolidated NuRa, South-Africa: NuRa will finally start performing reinstallations from 2017 and onwards and will perform regular replacements.
FRES Uganda, Uganda: concerns the expenses for replacement of SHS parts and the removal of systems of cancelled clients.	Yeelen Ba, Burkina Faso: The expenses for replacement of SHS parts and the removal of systems from cancelled clients.
FRES Guiné-Bissau, Guinea-Bissau: concerns the expenses for replacement of SHS parts and the removal of systems of cancelled clients.	Expenses for expansion of group companies non consolidated NuRa, South-Africa: There is no DoE contract expected.
Expenses for expansion of group companies	Yeelen Ba, Burkina Faso: No investments in 2017 as there is no EU subsidy. The company will focus on stabilizing and reaching its base of 3500 customers.
These expenditures concern capital investments for connection of new clients. The budget 2017 is higher than 2016 mainly because Yeelen Kura will increase the investments on mini-grids.	
Yeelen Kura, Mali: An investment of €1.600.000 is planned for replacement of diesel in solar contribution of three existing minigrids (EU funding and co-financing FRES) and extension with 300 SHS.	
FRES Uganda, Uganda: An investment of €600.000 is planned in 2017 with EU and EEP subsidies for connecting new clients in 2017.	
FRES Guiné-Bissau, Guinea-Bissau: An investment of €750.000 is planned for expansion with 250 mini-grids clients and 1000 SHS.	



Appendices

Terminology

AC
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. DC: Direct Current 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).

Solar Home System and solar mini-grid: how does it work?

How does a Solar Home System (SHS) work?
An 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, NOx and SO2 emissions due to electricity production;
 - 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?
Aad Veenman	Chairman	Chairman of the Supervisory Board TenneT BV Chairman of the Supervisory Board Achmea Member of the Supervisory Board Prysmian Netherlands Holding N.V. Member of the Supervisory Board Royal Huisman Shipyard Chairman of National Logistics Cluster Chairman Topteam Technology Base Twente	30 October 2013/30 April 2016	no
Peter Smink*	Secretary until 30 April 2016, Chairman since 30 April 2016	CEO/CFO NV Nuon Energy Member Supervisory Board Yellow and Blue Board member Swedish Chamber of Commerce in the Netherlands	1st October 2014/30 September 2018	yes
Wim Sinke	Secretary	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	12 December 2016 /11 December 2020	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, 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.

* Peter Smink acted on behalf of Nuon until 31 December 2015, and in a personal capacity from 1st January 2016

STAFF FRES NETHERLANDS

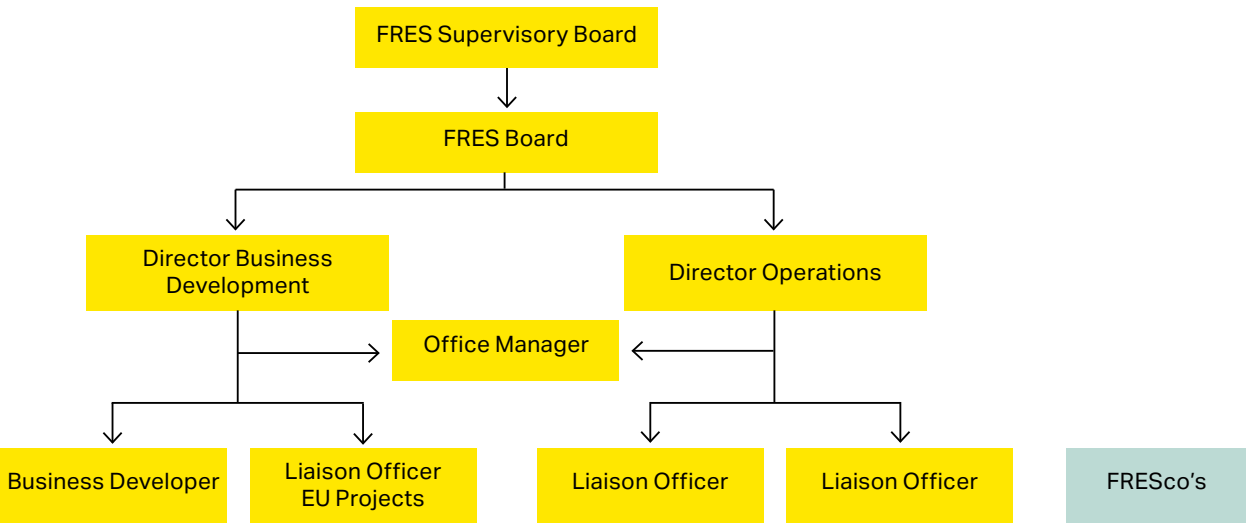
FRES strives to keep the operational expenses in the Netherlands as low as possible by working with a small core of permanent (paid) employees and a flexible team of volunteers and (pro bono working) experts.

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

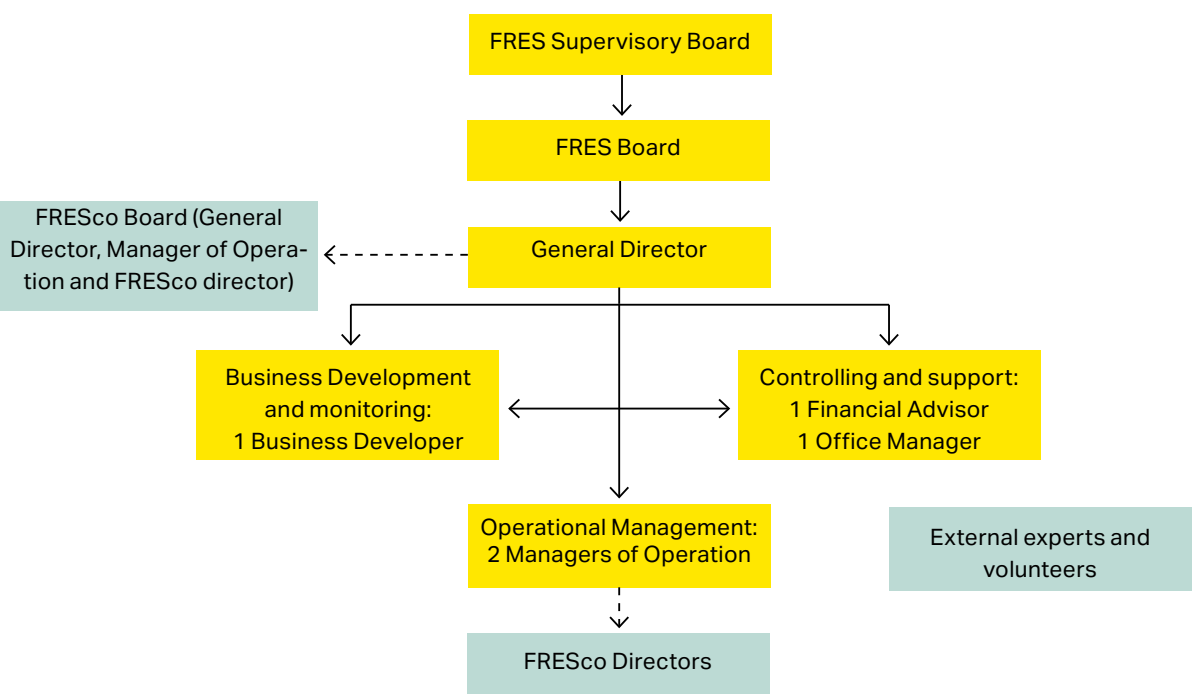
The volunteers and pro bono working experts have different backgrounds and fields. They often work for us on a temporary basis with a clearly described assignment. We work with experts, students, interns and other volunteers. Experts support FRES with specific knowledge, experience and networks; interns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

In 2016 the organisation structure of FRES NL was adapted in order to improve efficiency and self-reliance in the organisation.

FORMER ORGANISATION STRUCTURE FRES NETHERLANDS



NEW ORGANISATION STRUCTURE FRES NETHERLANDS



FRES Netherlands (paid staff in 2016)

Caroline Nijland – Director Business Development (since 2007) – General Director (since May 2016)
Frederique Schlicher-Wijtenburg – Liaison Officer (2012 - july 2016)
Myra Rijssel – Office Manager (February 2015 - June 2016)
Chris Service – Business Developer (July 2012- July 2016)
Everard Geurtsen – Director Operations (May 2013 - April 2016)
Nuria Cunha Soares – Liaison Officer (August 2013 - December 2016)
Sabah el Miloudi – Coordinator EU Projects (2011 – June 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 (since 1 July 2016)
Bamshad Houshyani – Business Developer (since 10 October 2016)

	2013	2014	2015	2016
Number of employees	6	6	6	6
Male / Female ratio	2/4	2/4	2/4	1/5
Definite / Indefinite contract	5/1	5/1	5/1	5/1
Fulltime / Part-time	1/5	1/5	1/5	1/5
Number of FTEs	4.6	4.8	4.75	4,8
Average sick leave	0 %	1.5 %	1 %	1%
Average age	42	43	43	42
Influx / Outflow	2/1	0/0	1/1	5/5
Number of freelancers	2	2	2	1
Influx/outflow freelancers	1/0	0/0	0/1	1/1

GENERAL MANAGERS FRES COMPANIES

Yeelen Kura, Mali: Djibril Séméga
NuRa, South Africa: Busisiwe Nhlabathi
Yeelen Ba, Burkina Faso: Bourahima Yameogo
FRES Uganda: Joselyne Musiime (from October 2015)
FRES Guiné-Bissau: Reinder Bouwmeester (General Manager until June 2016), Archives Fernandes (interim General Manager since July 2016)

FRES NL ADVISORS AND EXPERTS

Tom van Woerkom – Network Losses Yeelen Kura, Mali (since 2010)
Willem Post – Human Resources Advisor, Netherlands (since July 2012)
Rob Boddeke – Fundamental Analysis of the business processes of Fresco Yeelen Ba in Burkina Faso
Henny van Vliet – Project manager at PUM for the FRES IT project
Wouter van den Berg – assistant to the General Director FRES NL
Coen de Ronde – Coach for Joselyne Musiime of FRES Uganda

RESEARCH

Martin Rohde – Regeneration of batteries in FRES’s rural electrification programme
Rodrigo González López (Technology University Eindhoven) - Optimising battery lifecycle performance in FRES Solar Home Systems
Yael Kerkmeester (Rotterdam Business School) - research on Effective marketing of fee for service in FRES’s rural electrification activities

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 2015 can be found at www.fres.nl/annual-report/

Colophon

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

Amstel 49
1011 PW Amsterdam
The Netherlands

P.O. Box 15247
1001 ME Amsterdam
The Netherlands

T +31 (0) 20 528 90 56
F +31 (0) 20 528 67 16
info@fres.nl
www.fres.nl

Photography
Nicolas Rémené
Will Boase
Max Bastard
FRES Archive

Design
Teresa Borasino, Amsterdam

Printing
Drukkerij !mpressed, Pijnacker

Paper
BalancePure® 100% Recycled

© 2017
All rights reserved



foundation RURAL ENERGY SERVICES

Amstel 49
1011 PW Amsterdam
The Netherlands

+31 (0) 20 528 90 56
+31 (0) 20 528 67 16
info@fres.nl
www.fres.nl