

# 2015 ANNUAL REPORT

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FRES  
Foundation Rural Energy Services

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\* For Appendices 2 to 6 see [www.fres.nl](http://www.fres.nl)

# INTERNATIONAL REQUIRES LOCAL

**“...bring light and development by providing electricity to rural areas not connected to a national grid”.**

# COMMITMENT ACTION

In 2015, the international community evaluated the results of the Millennium Development Goals and committed to the Sustainable Development Goals: 17 goals meant to transform our world in the coming 15 years. One of these involves energy: to ensure access to affordable, reliable, sustainable and modern energy for all.

But that was not all: nearly 200 nations adopted the Paris Climate Agreement. If both commitments are upheld, the UN and its partners will build a more sustainable world and improve the lives of people in Africa.

These commitments are perfectly in line with our mission as FRES and our daily work since 2001. We aim to bring light and development by providing electricity to rural areas not connected to a national grid. Our first priority is to be as cheap as possible for our customers but we also want to produce electricity in the most environment friendly way feasible: preferably with solar energy.

This year we expanded our customer base in four out of five FRES companies with 14% overall; South Africa is the only exception with a 3% net loss of customers. We were also able to reduce our use of diesel for electricity production. New donors committed to our cause, while existing donors expanded their support.

We had to tackle very difficult issues: a serious case of fraud in Uganda; non-performance of our company in South Africa; and the government of Mali which decided to nationalise a significant part of our company in that country.

Thanks to the dedication of our FRES teams in the five African countries where we work and The Netherlands, the enormous support from seasoned experts who work for FRES and our partners, we are tackling these serious problems without negative effects for our customers.

We stand by our promise of at least twenty years of secured power supply to customers who pay the agreed service fee. We can live up to this only if our companies are financially sustainable. We would have liked to make bigger steps towards long-term financial sustainability in 2015. For people in Africa the future is often hidden by the hardships of daily life. This means that the concept of long-term financial sustainability was new to our staff. It took time to root and be shared. Slowly it is becoming part of their way of looking at their company, which is real progress.

We thank all who work for FRES, experts, partners and donors who provide expertise or financial support essential to make our efforts a success, and our staff in Africa and in The Netherlands; your dedication is essential to our results. Together you have done much more than contribute the so-called drop in the ocean; you have made life easier for far more than half a million people in Africa.

## **The Board**

Annemarie Goedmakers

Serge Leijten

Joop Lasseur





# REPORT FROM THE SUPERVISORY BOARD

It is the task of the Supervisory Board to supervise and advise the Board of FRES, to appoint FRES Board members, 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. In 2015, the Supervisory Board consisted of two members: Aad Veenman (Chairman) and Peter Smink (Secretary). There was one vacancy.

The Supervisory Board is pleased with the progress made in streamlining operations and monitoring results in order to promote the financial sustainability of its companies. It has welcomed the increased efforts in financial and risk management aimed at improving operational excellence. The development of FRES is positive and the forecast, thanks to excellent subsidy and project support, is in accordance with the FRES goals.

In 2015, the Supervisory Board held two meetings. On 1 May 2015, the Supervisory Board adopted the 2014 annual accounts and granted its approval to the 2014 annual report. The Supervisory Board also granted the Board of FRES discharge over 2014.

On 13 November 2015, the Supervisory Board discussed the business plan for 2016–2020. The Supervisory Board granted its approval to the annual plan and budget for 2016. An important topic of discussion was the aim for financial sustainability (continuity) of FRES and how to achieve this goal.

The Supervisory Board reappointed Peter Smink (until that moment member of the Supervisory Board on behalf of Nuon, the main sponsor of FRES, as of 1 October 2010) as a member of the Supervisory Board on a personal basis for the period from 1 January 2016 until 30 September 2018. He was a member of the Supervisory Board on behalf of Nuon until 31 December 2015, when the sponsor agreement between FRES and Nuon ended. Nuon had been the main sponsor of FRES since 3 July 2009.

We are confident that this annual report satisfies the transparency requirements and will meet the needs of FRES stakeholders. The Supervisory Board thanks all employees, volunteers and the FRES Board for their efforts and achievements in reaching the goal of FRES to increase access to affordable and clean energy in rural areas in Africa.

On behalf of the Supervisory Board,  
Aad Veenman, Chairman



# OBJECTIVES AND RESULTS 2015

## Operational performance

The performance of FRES companies will be assessed on:

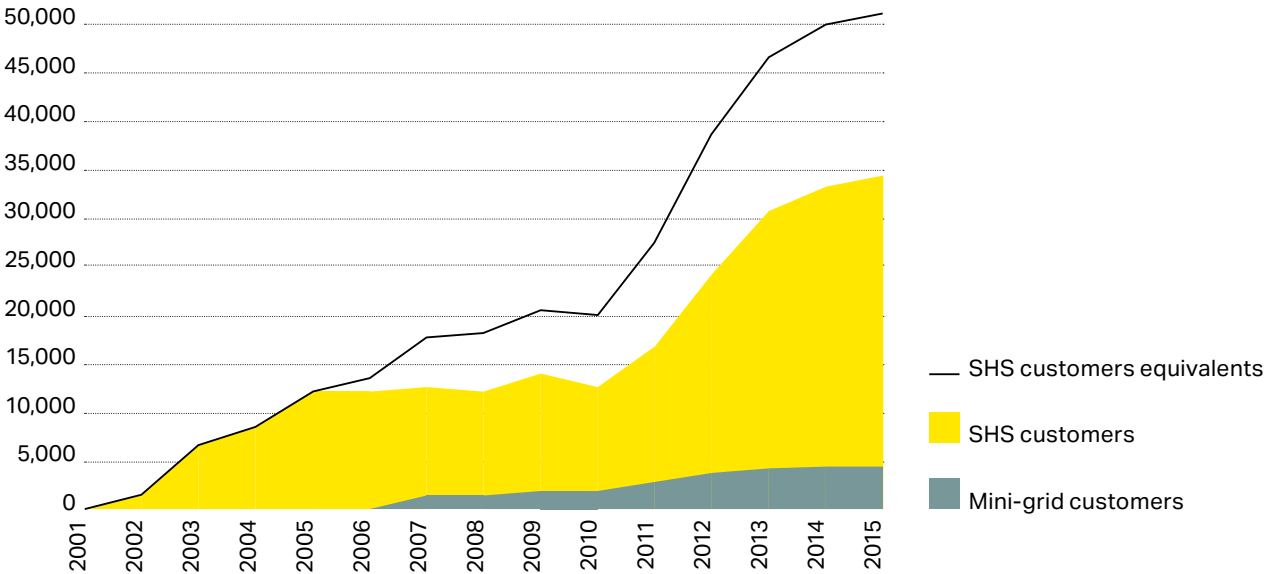
- payment rate;
- operating and replacement costs;
- customer growth;
- and financial sustainability.

The objective for all companies is to achieve financial sustainability within a short-term period. In order to achieve this, the performance of all companies has to improve through measures such as increasing customer density and customer retention, improving payment rates and reducing costs.

Total operational revenues of FRES companies in 2015 covered 111% of the total operational and replacement costs, compared to 93% in 2014. 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 increased marginally from 70% in 2014 to 71% in 2015.

## NUMBER OF CUSTOMERS



## Subsidies

We strive to sign contracts for € 2 million in new subsidies.

A total amount of € 2.1 million has been raised in new subsidies.

In February, FRES signed a EEP subsidy contract with the Ministry of Foreign Affairs of Finland. The project, with a subsidy value of € 0.6 million and total budget of € 1.2 million, will scale-up SHS activities in Uganda.

In May, NuRa signed a subsidy contract with the Department of Energy (DoE) of South Africa. The project, with a subsidy value of € 1.05 million, will scale-up SHS activities in Northern KwaZulu-Natal.

In September, FRES signed a subsidy contract with the OPEC Fund for International Development (OFID). The project, with a subsidy value of € 0.45 million and total budget of € 0.9 million, seeks to install and operate a solar mini-grid in Guinea-Bissau.

## Strategic partnerships

FRES aims to develop a strategic partnership with one new organisation. We strive for continued cooperation with our main sponsor, Nuon, and with Alliander as the cooperation agreements with both end in December 2015 and March 2016 respectively.

FRES and the Technical Universities TU Delft and TU Eindhoven have signed a cooperation agreement. Under the agreement, FRES will offer research projects for the Bachelor and Masters programs.

Both Nuon and Alliander have expressed the wish to establish new cooperation agreements with FRES. Both agreements will be multi-annual. Contracts are being negotiated and will be signed early 2016.

FRES for the third time extended its cooperation agreement with PUM involving eight assignments that will improve the functioning of FRES companies over the coming two years.

## Establishment of FRES Cameroon

FRES will enter negotiations with the Government of Cameroon in order to establish a new FRES company in Cameroon.

FRES has legally established FRES Cameroon in Bamenda, the capital of the North-West region of Cameroon. Pending approval from the relevant government authorities (authorisation for operation from the national regulatory authority and four-year customs exemptions from the Ministry of Finance), we hope to start customer installations late 2016.

## Reducing HSE risks

In 2015, focus on improvement of HSE policies and practices within FRESco's has to reduce the number of accidents compared to 2014.

In 2015, with the assistance of PUM, FRES companies have developed their own HSE policy and procedures including a registry of incidents, the company's response to accidents, and implementation of corrective actions. In 2015, the number of accidents and injuries in FRES companies was reduced by 4% compared to 2014.

## Enhanced knowledge exchange and standardisation between FRES companies

FRES will continue to facilitate intercompany knowledge exchange and build standardised policies and procedures for all new and existing FRES companies. Building on previous success, another Company Week will be organised early June 2015. At least three benchmarks on important operational data for the performance and comparison of the five FRESco's will be carried out.

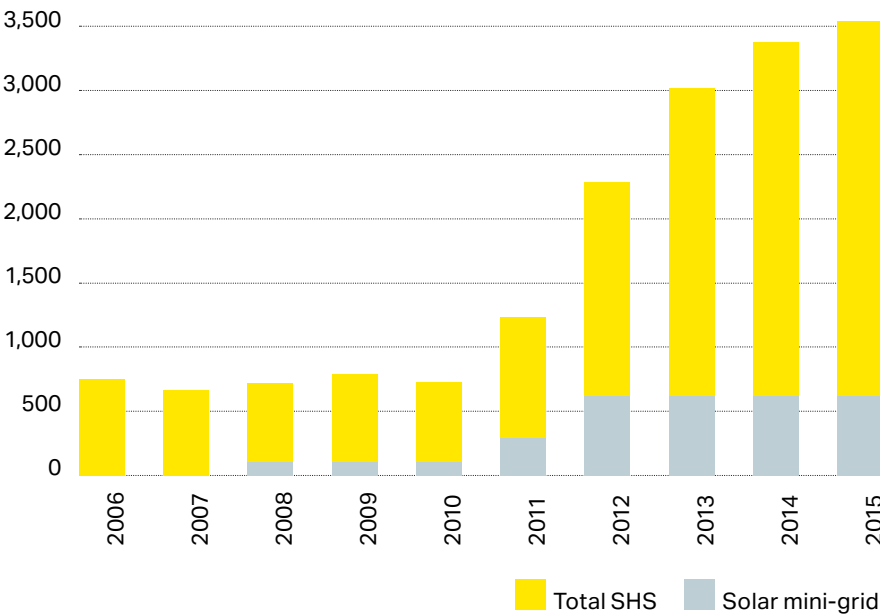
In June, FRES hosted the FRES Annual Company Week. A five-day networking and knowledge and experience exchange event for two MT members of FRES companies, the FRES Board and FRES NL staff.

FRES' technical 'Train the Trainers' programme was also launched. Members from each FRES company attended a seven-day training course, with attendees becoming future focal points for technical training within their respective national teams.

The FRES Inter Company Staff Exchange Programme that started this year enabled a first exchange between FRES Guinea-Bissau and Yeelen Ba.

Benchmarks on salary structure, service levels offered, costs and customer retention were carried out.

## INSTALLED SOLAR CAPACITY (KWP)



## CUSTOMER DEVELOPMENT 2015

Customer base 2014  
New customers  
Cancelled customers  
Net customer growth 2015  
Customer base 2015

	Nura	Yeelen Kura	Yeelen Ba	FRES Uganda	Guiné-Bissau	Total
Customer base 2014	18,065	6,314	3,365	3,482	2,041	33,267
New customers	649	1,020	380	1,028	1,149	4,226
Cancelled customers	1,239	347	273	621	190	2,670
Net customer growth 2015	-590	673	107	407	959	1,556
Customer base 2015	17,475	6,987	3,472	3,889	3,000	34,823





# I. FRES: PROVIDING PEOPLE AND BUSINESSES WITH ELECTRICITY

## FRES

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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 non-profit, small multi-national, 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 2015, FRES had 34,823 customers which means that over 360,000 people in households were provided with electricity in a sustainable way. In total more than 630,000 people, including over 4,200 owners of income generating businesses, benefitted from our services in some way. FRES is active in 684 villages of which 10 have access to public lighting. 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 to improvement of operations towards operational excellence as a condition for financially sustainable local companies. An adaptation of the governance structure of FRES companies has 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 FRESco's. In 2015 FRES NL was also subject to an OR process. Changes in the business environment and stakeholder positions were evaluated and reviewed, and key strategies were updated where necessary.

### Governance Review

In 2015, we finalised a 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 provides the basis for governance elements to be included in statutory articles of FRESco's.



# VISION, MISSION AND OBJECTIVES

## Vision

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

In 2000, the member states of the UN 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 redefined the global agenda with the launch of the Sustainable Development Goals. Access to affordable and clean electricity, since long recognized as an essential tool to decrease poverty, has been officially recognised as a 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 multi-national with daughter companies in developing countries that actively expand rural electrification.

**Objectives**

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

## FRES COMPANIES

	Yeelen Kura	NuRa	Yeelen Ba	FRES Uganda	FRES Guiné-Bissau
Founded	2001	2001	2008	2010	2011
Customers 2015	6,987	17,475	3,472	3,889	3,000
Province	Sikasso and Ségou	Kwazulu-Natal	Kénédougou	Mbarara, Bushenyi and Isingiro	Gabú
Country	Mali	South Africa	Burkina Faso	Uganda	Guinea Bissau
Technique	SHS, solar and diesel mini-grids	SHS and LPG	SHS	SHS	SHS

# 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**

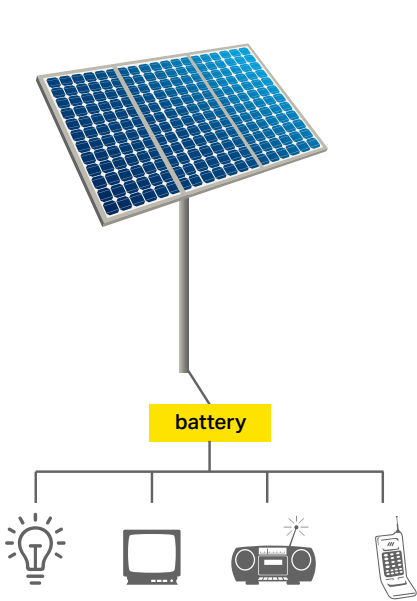
In Mali, FRES has built solar power plants that provide power to the people via a mini-grid. In some cases, the solar power plants replace (polluting and expensive) diesel generators. A mini-grid is a small electricity network, which can connect customers within a radius

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 2016

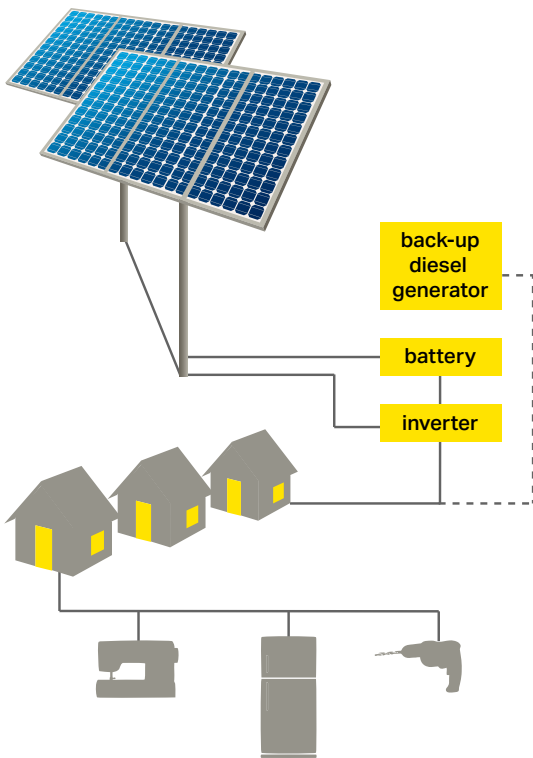
**Electricity use per customer**

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. For customers connected to a mini-grid an average of five times more Wp was installed 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 supply), while our mini-grid customers fall into tier 3 of the 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.

The costs of the delivered services for customers are on a 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 repair and/or replacement;
  - 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.

DIFFERENT SERVICE LEVELS

Level	SHS	Description	Wh per day
S1	80 Wp	2 lamps and 1 socket 25 W	200
S2	80 Wp	3 lamps and 1 socket 25 W	225
S3	160 Wp	5 lamps and 1 socket 25 W	500
S4	240 Wp	6 lamps and 2 sockets 60 W	770

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 2). 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 for FRES and its local companies; for instance by increasing market penetration, optimising logistics and costs, preventive maintenance and customer retention. Every year, we evaluate our performances in this area 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. In our companies the percentage of women in the general staff is 20% with 19% 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 with ISO certification 14001 or EMAS, and we request packaging with recyclable products and according to strict environmental standards, optimised by size and weight. In 2015, FRES

started to investigate the possibilities of battery regeneration technology as a means of restoring the battery capacity, thus increasing the lifetime of the batteries while reducing their environmental impact.

**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, where the domestic market is sufficiently developed to enable NuRa to purchase solar systems directly from the local market.

In 2015, FRES strengthened and standardised the local procurement practices of its local 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, 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).



# OUTLINE OF THE ORGANISATION

FRES consists of a small head office in the Netherlands, five active FRES companies and one newly registered company in rural Sub-Saharan Africa. The head office and companies are connected via a supervisory structure, which anchors cooperation.

### FRES Board

The FRES Board is responsible for the FRES Business Plan and appoints FRES Directors to the Boards 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 account. It appoints members to the FRES Board based on the nomination by the FRES Board.

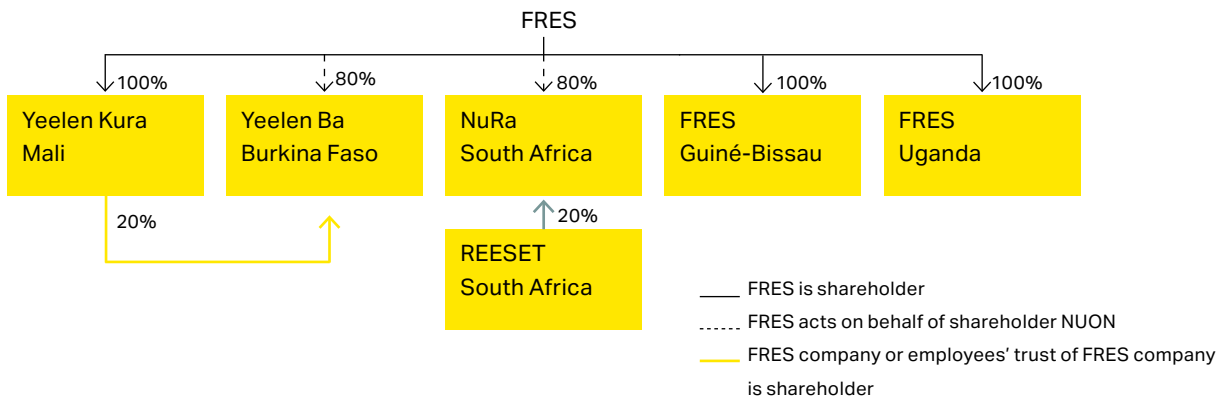
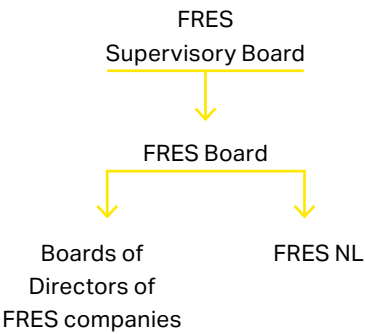
### FRES Companies

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. In 2016 when the necessary adaptation of the statutes of FRESco's is finalised, the local General Manager will be appointed by the Shareholders Assembly as an Executive Board member.

### 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 employees, supplemented by a large number of (highly qualified) volunteers. The employees of FRES Netherlands report to the FRES Board.





# RESULTS 2015

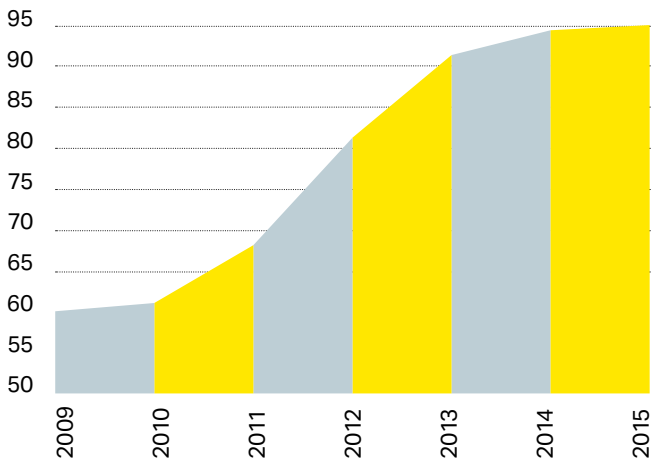


The main results of FRES in 2015 are:

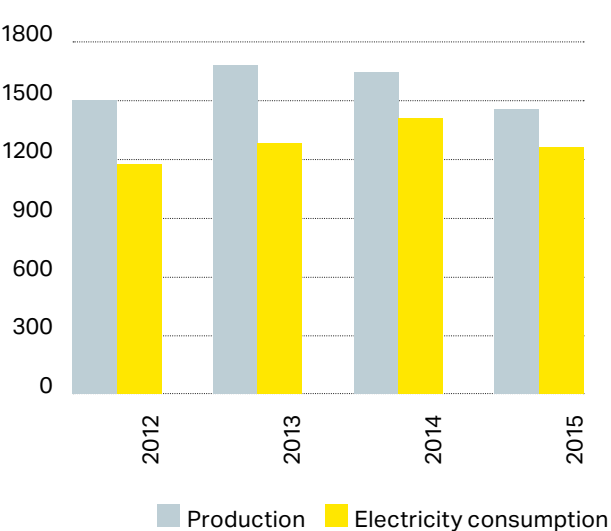
- The number of customers increased by 4.7% from 33,267 to 34,823. Four companies registered growth, NuRa being the exception, showing a decline.
- In 2015, the number of SHS customer equivalents increased from 49,379 to 50,915. In Mali FRES has SHS as well as mini-grid customers. In order to value the extra service that can be rendered by a mini-grid we calculated that on average a mini-grid customer is provided with five times as much solar capacity as an SHS customer. An SHS customer equivalent takes this difference into account.
- At the end of 2015 the five active FRES companies had an installed capacity of 3.5 MW for their customers, a growth of 0.2 MW in one year.
- Technical and non-technical losses of four mini-grids of Yeelen Kura have been reduced from 23% (2013) to 8% (2015) with the aid of our partner Alliander and an independent consultant.
- The government of Mali ordered the transfer of ownership of the Bla mini-grid (infrastructure and customers) from Yeelen Kura to the national grid company, Energie du Mali (EDM). The Bla mini-grid is Yeelen Kura's only 100% diesel-powered mini-grid and supplies 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 by the government. Negotiations have started on a suitable compensation agreement in line with national regulations prior to the formal transfer of the infrastructure and customers.
- FRES has formalised the legal establishment of a local company in Cameroon. Pending approval from the relevant government authorities, customer installations could start towards the end of 2016.
  - FRES has worked successfully on mobilising financing for the coming years. Subsidy agreements totalling € 2.1 million have been signed.
  - TU Delft and TU Eindhoven started an investigation into how FRES companies can optimise the lifecycle (and costs) of batteries, from both a technical and a non-technical standpoint. The research is part of a wider cooperation with the Technical Universities of Delft and Eindhoven.
  - In 2015, FRES companies generated sufficient operational income to cover all operating and replacement costs with a positive net margin of 11%.
  - FRES standardised its policies for local procurement, internal audits and staff bonuses for all FRES companies.

SOLAR CAPACITY PER SHS CUSTOMER



MINI-GRID GENERATION AND CONSUMPTION



SHORT-TERM PERFORMANCE INDICATOR

Company	2013	2014	2015
NuRa	83%	102%	98%
Yeelen Kura	132%	122%	138%
Yeelen Ba	55%	51%	113%
FRES Uganda	63%	71%	92%
FRES Guiné-Bissau	71%	84%	137%
FRES consolidated	84%	93%	111%

LONG-TERM PERFORMANCE INDICATOR

Company	2013	2014	2015
NuRa	65%	87%	79%
Yeelen Kura	74%	69%	69%
Yeelen Ba	38%	39%	81%
FRES Uganda	50%	66%	54%
FRES Guiné-Bissau	33%	54%	74%
FRES consolidated	60%	70%	71%

TAXES PAID

	Yeelen Kura	NuRa	Yeelen Ba	FRES Uganda	FRES Guiné-Bissau
Taxes on wages	€ 9,233 XOF 6,056,268	€ 32,536 ZAR 547,832	€ 6,397 XOF 4,196,141	€ 41,766 UGX 154,158,097	€ 5,357 XOF 3,513,960
Other taxes	€ 33,876 XOF 22,221,507	€ 10,423 ZAR 175,502,38	€ 9,977 XOF 6,544,528	€ 18,527 UGX 68,381,700	€ 37,276 XOF 24,451,375





# IMPACT OF RURAL ELECTRIFICATION

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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 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, high-value jobs. Consequently, FRES is able to bind qualified personnel to the region. By the end of 2015, FRES companies provided direct employment to 229 people and indirectly employed about the same number. By using locally provided goods and services wherever 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 FRESco's to set reduced rates for their customers.

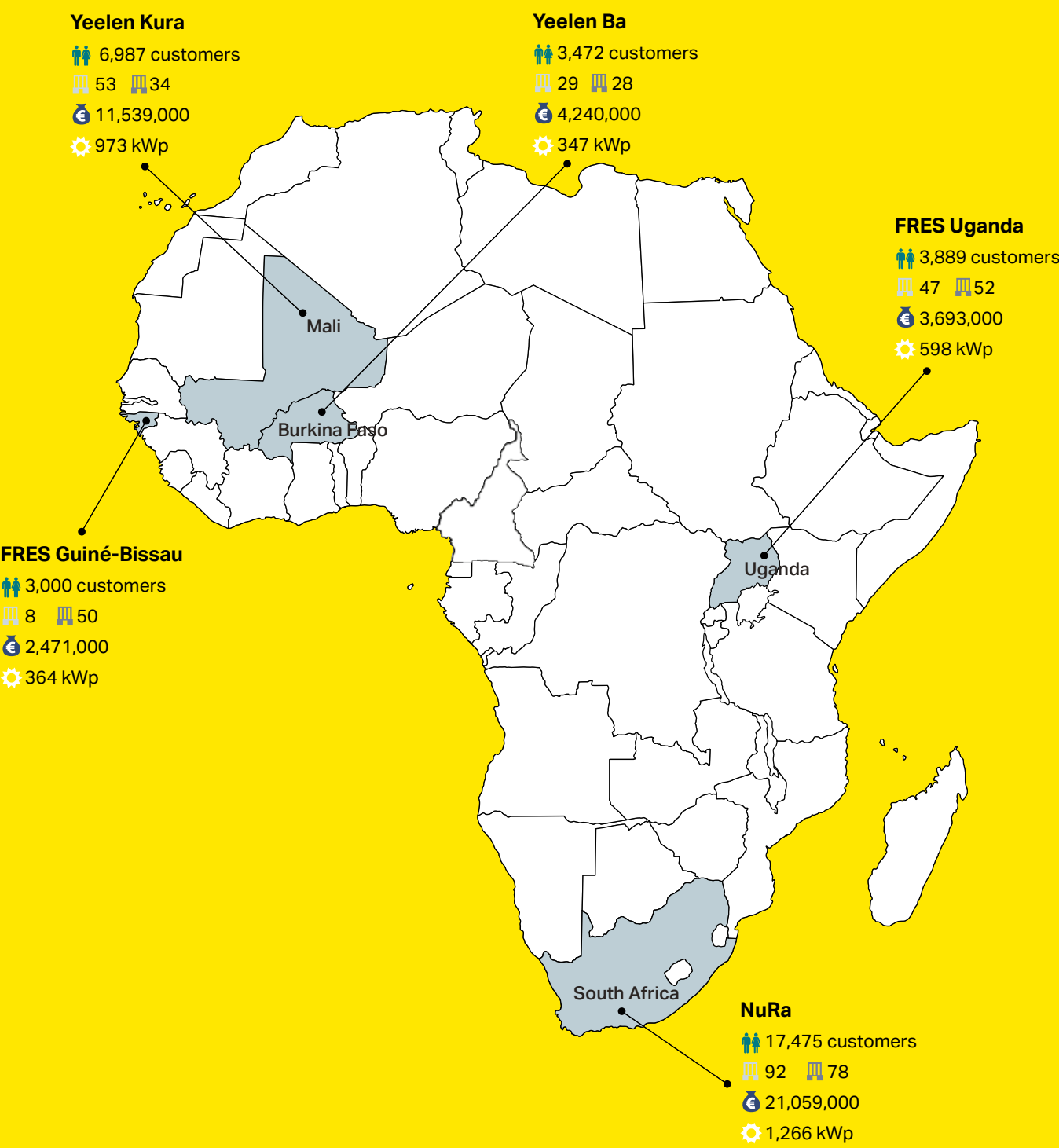
All FRESco's contribute to the budgets of governments by paying other taxes and duties according to local legislation. In 2015 FRESco's paid a total amount of € 95,288 on wage taxes for their 229 employees (€ 416 per person) and € 110,079 on other taxes – or € 3.16 per customer.





## II. FRES COMPANIES

## FRES COMPANIES 2015



### FRES TOTAL

Customers*	Staff (direct)	Staff (indirect)	Investmensts in euro's	Installed solar capacity (kWp)
34,823	229	242	€ 43,002,000	3,548

\*In Mali FRES has SHS customers as well as mini-grid customers. On average a mini-grid customer is provided with five times as much electricity as an SHS customer. Taking this into account, the number of SHS customer equivalents was 50,915 at the end of 2015.



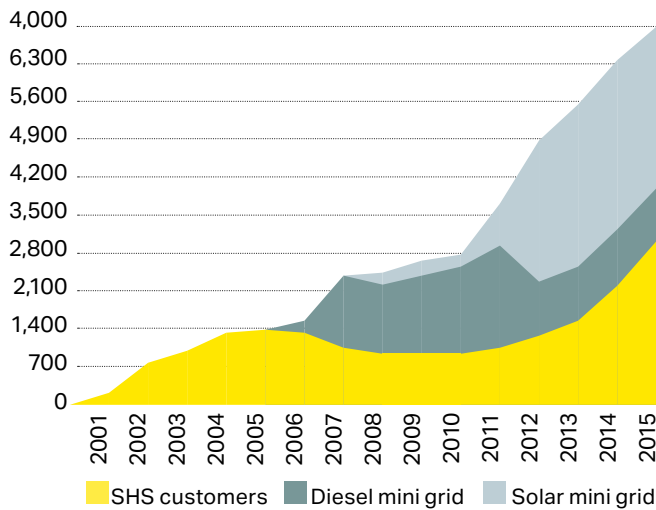
# YEELLEN KURA



## BASIC INFORMATION

Year founded	2001
Products and services	SHS, solar mini-grids and one diesel mini-grid
Number of employees	53
Number of customers	6,987 (2,964 SHS and 4,023 mini-grid)
Number of energy stores	16
Shareholders	100% FRES

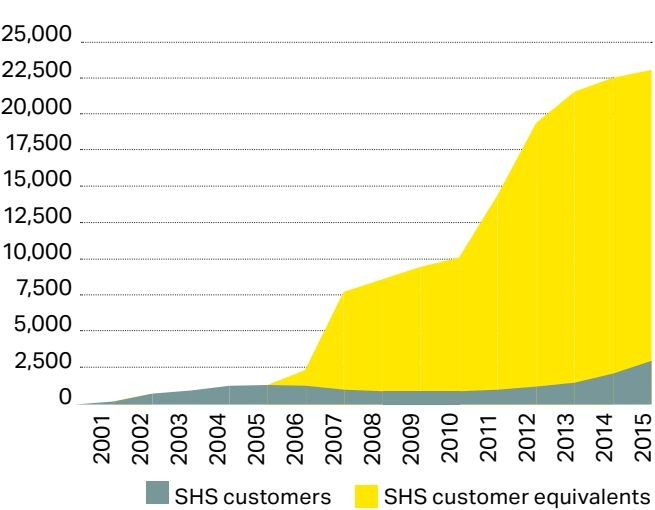
## NUMBER OF CUSTOMERS



Mali has over 15 million inhabitants and is 179th out of 187th on the most recent UNDP Human Development Index. In Mali only 9% of the rural population 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. Presidential polls in August 2013 were part of a return to civilian rule. While the political situation stabilized in 2014, the situation in the northern part of the country remains tense with both Tuareg separatists and Islamists sporadically active. The country is being increasingly destabilised by terrorist attacks.

## NUMBER OF SHS CUSTOMERS EQUIVALENTS



FRES company Yeelen Kura has been active in the southern provinces Sikasso and Ségou 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 mini-grids powered by solar energy and/or diesel.

## Results 2015

### Payment rate

Yeelen Kura achieved a payment rate of 101%, surpassing the target of 95%. Two factors were important: the effect of the prepaid meters Yeelen Kura installed for mini-grid customers and the impact of the electronic devices which cut off the electricity supply of the SHSs in case of payment delays.

## Operational and replacement costs

Operational and replacement costs exceeded the budget by 13% due to higher than foreseen transport costs and taxes, and a provision for debts of customers that resigned.

## Number of customers

At the end of 2015, Yeelen Kura had 6,987 customers a growth of 673 customers; 577 customers short of the target for 2015 (7,564 customers). The late delivery of Solar Home Systems procured within EU procurement rules, has been the main cause for this shortfall. After a lack of growth in SHS customers in the first semester, the annual growth target for SHS customers was nearly achieved.

## Financial sustainability

Yeelen Kura's cost coverage increased from 122% in 2014 to 138%. The target to make progress towards long-term financial sustainability was not reached. Long-term cost coverage did not improve and remained far too low at 69%. Due to the still too low rates for mini-grid customers, the revenues of Yeelen Kura – although they exceed this year's costs – are insufficient to cover future replacement costs.

## Contracts and investments

FRES has two new contracts with the EU enabling investments in 3,950 SHSs and a number of mini-grids in the period 2015–2018.

## Research

The action-plan to reduce losses in the mini-grids of Yeelen Kura focused in phase one on the networks of Koury, Bla and Kolondieba. In 2015, phase two shifted focus to the networks of Yorosso, Kimparana, Koumantou. Network losses have been attributed to load changes due to the increase of customers and improper connections, resulting in overloaded cables and transformers. Some mini-grids encountered malfunctioning of electricity

meters and customer fraud. A total of € 97,000 was invested in improvements, with an expected payback period of less than two years. The third and final phase of the programme will be completed in 2016. During the programme, know-how of the methods used istransferred from Alliander to Yeelen Kura. In the 1st phase Alliander took the lead in prescribing the methodology and performing calculations, whereas Yeelen Kura's role was limited to field work (measurements and implementation). In the 2nd and 3rd phase the whole process was carried out by Yeelen Kura. With this know-how Yeelen Kura no longer relies on external experts to maintain the networks' performance. Yeelen Kura's technical department has developed maintenance procedures for up keeping the condition of the mini grids.

## Products, services and rates

### Rates

In 2015 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 pay per kWh. In 2015, the prices were 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 are largely insufficient to cover lifecycle costs. Although former agreements gave hope, AMADER, the organisation in Mali that has to agree with rate increases, did not yet decide on the requests from Yeelen Kura to increase the rates for solar mini-grid customers. Higher rates are needed to reach and maintain financial sustainability

### Customer care

Customer complaints, remarks and observations are registered in a database to ensure an adequate follow-up by the marketing and technical departments. No special issues were encountered in 2015.

## 2015 RESULTS OF MINI-GRID PERFORMANCE IMPROVEMENT PROGRAMME

Phase	Location	Network losses before (%)	Network losses after (%)
Phase 1	Bla	18%	10%
	Kouri	20%	8%
	Kolondieba	28%	6%
Phase 2	Koumantou	42%	8%
	Yorosso	15%	8% (expected)
	Kimparana	11%	5% (expected)
Phase 3	Kignan	9%	6% (expected)
	Niena	19%	10% (expected)



Mini-grids

Our investments in solar plants enable us to reduce the use of diesel. Our aim is to replace all diesel generation by solar and use diesel generators as back-up capacity only. The mini-grid in Bla is the only remaining one solely powered by diesel. The sudden nationalisation process of mini-grids started by the Malian government in 2015 necessitates reorientation of our investment plans and will probably lead to delays in solar investments.

Organisation, governance and supervision

The sales & marketing manager and the technical manager who joined the company in 2014 have strengthened the management team. The reorganisation that started in 2014 was finalised in 2015. On 31 December 2015, Yeelen Kura employed 53 people directly and 0 on a commission basis.

Workforce profile 2015

Number of employees	53
Male / Female	49 / 4
Permanent / temporary contracts	36 / 17
Fulltime / part-time	53 / 0
Inflow / outflow men	2 / 3
Inflow / outflow women	0 / 0
Employees from 15-24 years	6
Employees from 25-34 years	22
Employees from 35-54 years	24
Employees of 55 years and older	1
Number of men / women in MT	4 / 0
Number of male / female store managers	14 / 1
Number of male / female interns	5 / 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 28,460 FCFA (€ 43) at the start of 2015. Performance bonuses were awarded to motivate employees as well as to technicians who worked nights. All employees had at least one performance evaluation. The number of grievances was four (problems between colleagues, excessive workload, working conditions etc.). Three complaints could be resolved by the general manager.

Health, Safety and Environment (HSE)

In 2015, the number of lost days due to illness was thirteen. Improved the improved focus on HSE proved to be successful: no accidents were reported by Yeelen Kura.

Staff development

Three employees participated in the FRES-wide technical Train the Trainers programme in Uganda. Four interns underwent training in the company’s methods for marketing and sales of SHSs in rural populations in Yeelen Kura’s concession area. One technician participated in a training on solar and hybrid (solar/diesel) mini-grids organised by AMADER.

Management and governance

The general manager is Djibril Séméga, he reports to the Board of Directors of Yeelen Kura, consisting of: Everard Geurtsen – Chairman  
Caroline Nijland – Member

Challenges and objectives

Yeelen Kura’s business plan 2016-2020 focuses on increasing the SHS customer base while improving SHS customer retention, and reducing network losses and diesel consumption in the mini-grids. Yeelen Kura hopes to install new solar power plants in several new and existing locations in order to connect new customers and cater to the growing demands of its existing customers. This depends on positive developments concerning Mali’s off-grid rural electrification plans. The decision by the government to nationalise the mini-grid of Bla might endanger Yeelen Kura’s investment plans. A key condition for Yeelen Kura to achieve financial sustainability is its ability to successfully negotiate a rate increase for the solar mini-grids with AMADER.







BASIC INFORMATION	
Year founded	2001
Products and services	SHS and LPG
Number of employees	92
Number of customers	17,475 SHS
Number of energy stores	9
Number of service agents	5
Shareholders	80% Nuon, 20% REESET

South Africa (1,219,912 km²) has nearly 55 million inhabitants, of which 45.% lives in poverty due to extreme differences in income and a high level of unemployment (2011, World Bank). The country is 116th out of 187 on the most recent Human Development Index of UNDP. Of all inhabitants, 85% has access to electricity. The political situation in the country is generally stable, but overall the supply of basic services has been lagging behind politicians’ promises. The non-grid electrification programme in South Africa is always subject 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 2015

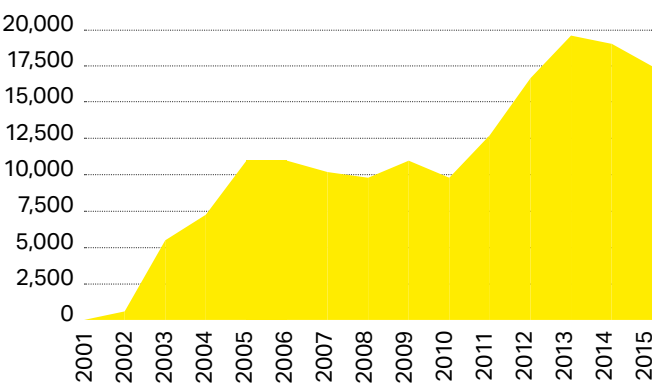
Payment rate

Over 2015, making major improvements in the payment rate proved too challenging: the achieved payment rate was 66%, compared to 65% in 2014. Apart from non-payment due to failing customer care, theft and tampering of systems both by customers and employees, the growth in illegal grid connections in NuRa’s operating area continued to impact the company’s payment rate. In response, NuRa adjusted its screening conditions for new customers in order to avoid regions considered to have a high risk of illegal grid connections in the future.

Operational and replacement costs

NuRa stayed within its budget for its operational and replacement costs over 2015. Its costs were 31% lower than budgeted. The budget included costs for large scale re-installations but no re-installations took place in 2015.

NUMBER OF CUSTOMERS



Number of customers

NuRa connected 649 new customers in 2015 under the latest subsidy agreement with the South African Department of Energy. However, non-payment forced the company to repossess many SHSs which resulted in a loss of 1,239 customers.

At the end of 2015, NuRa supplied light and electricity to 17,475 customers representing a net decline of 590 customers in 2015.

Financial sustainability

NuRa’s cost coverage decreased from 102% in 2014 to 98% in 2015. Its long-term cost coverage decreased from 87% to 79%.

Contracts and investments

In May, NuRa signed a new subsidy contract with the Department of Energy (DoE) for the supply, installation and maintenance of 2,000 SHSs.



Products, services and rates

Rates

In 2015, the rates for SHS customers were between ZAR 80.00 (€ 4.89) and ZAR 287 (€17.55) ex. VAT a month, depending on the chosen service level. The levels differ 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 with over 20% as a result 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 reason for dissatisfaction. From the total of 17.309 complaints in 2015 613 complaints were outstanding per December 2015.

Organisation, governance and supervision

Following a less than satisfactory performance in 2014, the NuRa board and management team established a six-month Action Plan in the first quarter of 2015 with clear targets for the management team. Subsequent evaluation has shown none of the targets have been reached. The downhill development of the company led to the resignation of its general manager at the end of 2015. Technical manager, Tumelo Modiselle, was appointed as the interim general manager to ensure continuity of the company until a turnaround manager could be recruited to reorganise the company to face its challenges and improve its operational performance.

On 31 December 2015, NuRa employed 92 people directly and 78 indirectly, on a commission basis.



Workforce profile 2015

Number of employees	92
Male / Female	63 / 29
Permanent /temporary contracts	73 / 19
Fulltime / part-time	92/0
Inflow / outflow men	13 / 10
Inflow / outflow women	11 / 10
Employees aged 15-24	21
Employees aged 25-34	59
Employees aged 35-54	12
Employees aged 55 or over	0
Number of men / women in MT	2 / 1
Number of men / women in middle MGMT	5 / 6
Number of interns	0

Salary and terms of employment

In addition to their salary, NuRa offers its employees’ pension provisions and life insurance. A NuRa employee starting in an operational function earned ZAR 2,657 (€ 162) a month, while the legal minimum wage level in South Africa is ZAR 2,514 (€ 153) a month. Depending on the position or contract, contributions for car and/ or phone, and pregnancy leave are available. Employees were motivated via performance bonuses and shares in REESET.

All employees had at least one performance evaluation, and depending on the function some were evaluated quarterly or even monthly. No official complaints were referred to management.

Health, Safety and Environment (HSE)

The total number of lost days due to illness was 74. No work-related injuries were reported in 2015.

HIV/AIDS program

South Africa has a significant HIV/AIDS problem. A number of employees have HIV/AIDS which results in absences and sick days. NuRa has created an HIV programme that aims to break the taboos surrounding HIV/ AIDS, and increase the knowledge regarding the prevention and treatment of HIV/AIDS.

Staff development

Technical training courses were arranged for 61 employees in 2015.

Management and governance

The general manager as well as the interim general manager reported to the Board of Directors of NuRa.

At the end of 2015 the Board of Directors consisted of: Everard Geurtsen – Chairman (on behalf of Nuon) Caroline Nijland – Member (on behalf of Nuon) Bart Blokland – Member (on behalf of REESET)

Challenges and objectives

NuRa is facing new challenges in a changing market. Furthermore, with over 17,000 customers, the optimal customer capacity has been reached. A turnaround manager will be recruited to reorganise and restructure the company so that in 2016 the company will be in a stronger position to face future challenges. The company has to:

- increase the current customer base
- improve customer retention
- achieve financial sustainability
- secure the company’s assets by enforcing internal control & procedures
- align the commitment of its staff to the objectives and values of the company.

The plan to turn the company around will form the core of the business plan for the coming years.



BASIC INFORMATION

Year founded	2008
Products and services	SHS
Number of employees	29
Number of customers	3,472 SHS
Number of energy stores	11
Shareholders	80% Nuon, 20% FRES

Burkina Faso is a Sub-Saharan country with slightly more than 17 million inhabitants. The country ranks 183rd out of 187 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. The political situation in the country is fragile.

In Burkina Faso, FRES supplies light and electricity by installing SHSs 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 2015

Payment rate

Yeelen Ba achieved a payment rate of 84% in 2015, an improvement compared to the 75% in the year before. This year the focus was on improving payment rates while stabilising the customer base.

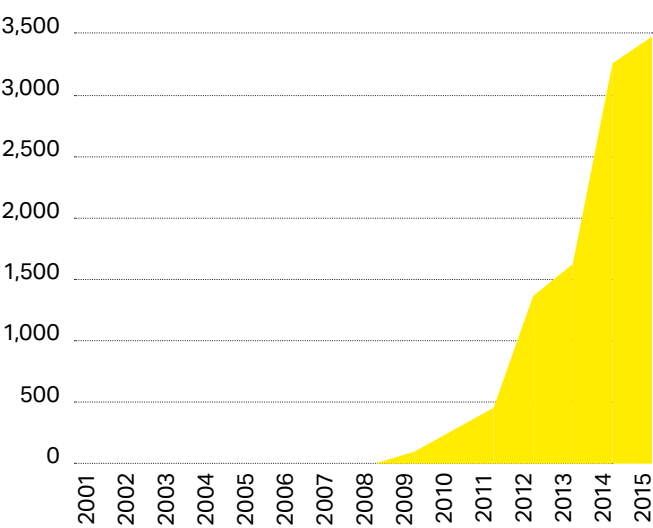
Operational and replacement costs

Yeelen Ba exceeded its budget for 2015 with 17% due to higher than expected replacement costs. Yeelen Ba had not budgeted the components needed for replacements.

Number of customers

In the absence of external funding for new customers, Yeelen Ba’s objective was to reach at least 3,500 in 2015 by using its own resources. By the end of 2015, the company had 3,472 customers, a net increase of 107 customers compared to the customer base of 2014.

NUMBER OF CUSTOMERS



Financial sustainability

The company strongly increased its cost coverage from 51% in 2014 to 113% in 2015. Its long-term cost coverage showed a clear increase from 39% to 81%. The aim is to reach financial sustainability once a customer level of around 6,000 is reached.

Contracts and investments

In partnership with lead applicant FDE (Fonds de Développement de l’Electrification), Yeelen Ba took part in a funding application to IRENA (International Renewable Energy Agency). The project seeks to upscale Yeelen Ba’s SHS activities.



Products, services and rates

In 2015 Yeelen Ba provided SHS services at between CFA 3,845 (€ 5.86) and CFA 9,050 (€ 13.80) a month.

All customer complaints, remarks and observations are registered in a database. A total of 1,500 complaints reached the company in 2015, largely related to the technical break-downs. 90% of the complaints had been solved per end of December 2015.

Organisation, governance and supervision

On 31 December 2015, Yeelen Ba employed 29 people directly and 28 people (plus 8 trainees) indirectly, on a commission basis. One staff member was temporarily assigned to FRES Guiné-Bissau and he/she? resigned late 2015.

Workforce profile 2015

Number of employees	29
Male / female	28 / 1
Permanent / temporary contract	27 / 2
Fulltime / part-time	29 / 0
Inflow / outflow men	1 / 0
Inflow / outflow women	0 / 2
Employees aged 15-24	0
Employees aged 25-34	20
Employees aged 35-54	9
Employees aged 55 or over	0
Number of men / women in MT	3 / 1
Number of male / female store managers	11 / 0
Number of male / female technical interns	4 / 4

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 2015, while 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. The number of grievances was 15, of which eight were resolved by management.

Health, Safety and Environment (HSE)

The total number of sick days was 52, which included those caused by four traffic accidents. Yeelen Ba strictly controls the rules set to prevent accidents, such as no driving (motorcycles and cars) after 18h00 and controlling the compulsory use of helmets.

Staff development

All employees followed a training of four days on how to market FRES’ business model in rural areas; three technicians attended the seven-day technical Train the Trainers programme in Uganda.

Management and governance

The general manager of Yeelen Ba is Bourahima Yameogo. He reports to the Board of Directors of Yeelen Ba, consisting of:  
Everard Geurtsen – Chairman on behalf of shareholder Nuon  
Caroline Nijland – Member on behalf of shareholder Nuon  
Djibril Séméga – Member on behalf of shareholder Yeelen Kura

Challenges and objectives

The business plan 2016-2020 focuses on achieving a payment rate of 95% while maintaining good customer retention , the continuous optimisation of resources with strict cost control, and ensuring no further growth until new subsidies become available. We hope to find external funding for expansion of the company. The organisation of the company requires attention due to the departure of the technical manager in 2015.





# FRES UGANDA



Uganda, a country of over 240,000 km², is situated on the equator in Southern Africa. 30% of the Ugandan population of more than 39 million lives in poverty. The country is 163rd out of 187 on the most recent Human Development Index of UNDP. Approximately 18% of the inhabitants have access to electricity. For inhabitants in rural areas, this is 7%, often limited to the cities and trading towns along paved roads (IEA, World Energy Outlook 2014). The country is politically stable. The next elections will be held in 2016.

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 2015

#### Payment rate

The payment rate has improved significantly from a 2014 payment rate of 80% to 89% in 2015. During the year actions were taken to control payment discipline, including offering a variety of payment options, setting targets for all personnel at the energy stores, and appointing a dedicated manager debt collections.

#### Operational and replacement costs

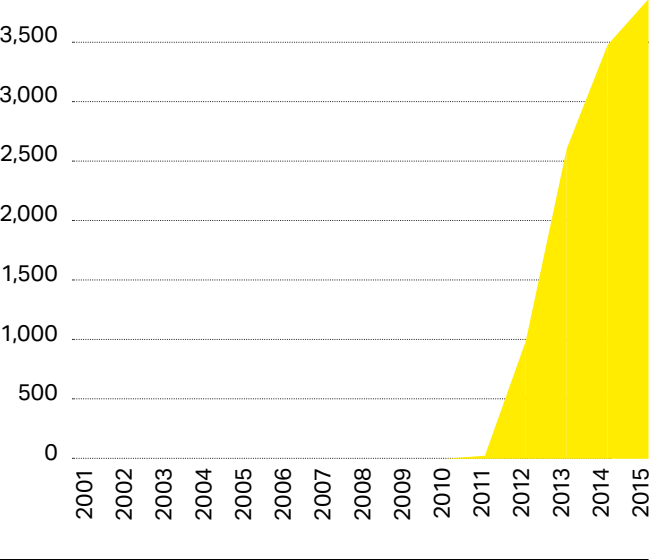
The company exceeded its budget for 2015 by 8%. Fuel price increases after the depreciation of the shilling against the US dollar, and a tax that was not budgeted were some of the causes.

Uganda has a high cost level compared to other FRESco's.

### BASIC INFORMATION

Year founded	2010
Products and services	SHS
Number of employees	47
Number of customers	3,889 SHS
Number of energy stores	4
Number of service centres	4
Shareholders	100% FRES

### NUMBER OF CUSTOMERS



### Number of customers

In addition to its four energy stores, it also has four service centres. Service centres are set-up further into the rural areas in order to reach (potential) customers living farther away from the main population centres. FRES Uganda installed 1,028 customers in 2015, whilst experiencing a too high number of customers that resigned: 621. Expansion of the national grid was one of the reasons. The net result was an increase in its number of customers of 407 to 3,889.

### Financial sustainability

The company has seen its cost coverage increase from 71% in 2014 to 92% in 2015. However, its long-term cost coverage decreased from 66% in 2014 to 54% in 2015.

### Research

Three students of the Delft Technical University are studying how to optimise the battery lifecycle performance in FRES Solar Home Systems. FRES hopes they will provide clear recommendations on how to improve the lifecycle performance of the batteries and thereby reduce the costs of the SHS.

### Contracts and investments

Problems due to an incorrect interpretation by inspectors of the Rural Electrification Agency (REA) of the contract between FRES Uganda and REA were resolved amicably. The contribution of the Doen Foundation ended 1-2-2015. FRES has a contract with the EU, which includes investments in 3,200 SHSs for FRES Uganda for the period 2015-2018.

### Products, services and rates

FRES Uganda offers five service levels including relatively large systems catering to the specific demands of business customers in the concession area. The monthly SHS service fee ranges from UGX 23,000 (€ 6.35) to UGX 69,000 (€ 19.06).

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 50 complaints (lamps and fuses blown, inverter failures, faulty switches, DC plugs or sockets burnt, etc.) which have all been solved.

### Organisation, governance and supervision

After an internal fraud investigation, the general manager plus two members of the management team resigned in late 2015. Marketing manager Joselyne Musiime, was appointed as interim general manager.

FRES Uganda is a company with standardised policies and guidelines.

On 31 December 2015, FRES Uganda employed 47 people directly and 52 indirectly, on a commission basis.

### 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 450,000 (€ 124) a month. Uganda does not have a legally set minimum wage. GDP per capita in Uganda was \$ 715 in 2014, which is of a comparable level to those of Mali (US\$ 705), Burkina Faso (US\$ 713) and Guinea-Bissau (US\$ 568).

### Workforce profile 2015

Number of employees	47
Male / female	38 / 9
permanent / temporary contracts	47 / 0
Fulltime / part-time	47 / 0
Inflow / outflow men	2 / 4
Inflow / outflow women	0 / 4
Employees aged 15-24	6
Employees aged 25-34	35
Employees aged 35-54	6
Employees aged 55 or over	0
Number of men / women in MT	4 / 2
Number of male / female store managers	4 / 0
Number of male / female volunteers	4 / 0
Number of male / female interns	3 / 1

Debt collecting employees were motivated via performance bonuses. All employees had at least one performance evaluation. There were 41 complaints. The majority concerned requests for higher pay or salary advances.

### Health, Safety and Environment (HSE)

15 injuries and a total of 223 sick days were reported in 2015. The most serious injuries resulted from road traffic incidents. Measures taken to prevent injuries include Defensive Driving training, advocating reports on bad driving, and provision of protective clothing. There were 70 regular sick days and 153 sick days related to accidents.

### Staff development

All staff received one or more training programmes varying from a three-year Public Accountancy course to one-day training courses in Stress Management/ Conflict Resolution skills, Defensive Driving Skills, Project Management, Time Management, and the like. Three technicians attended the 7-day technical Train the Trainers programme.

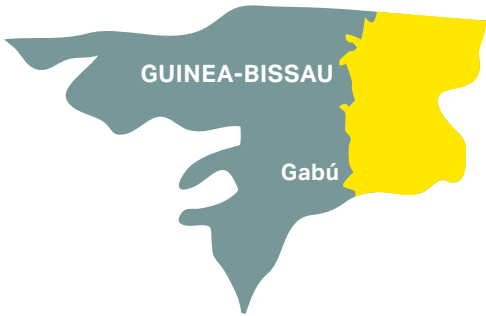
### Management and governance

The general manager is Joselyne Musiime (interim). She reports to the Board of Directors of FRES Uganda, consisting of: Everard Geurtsen – Chairman and Caroline Nijland – Member

### Challenges and objectives

The objectives for 2016 are to reduce operational costs considerably while further increasing the customer base to create economies of scale. Objectives are geared towards reaching the overall goals of financial sustainability and operational excellence as quickly as possible.





BASIC INFORMATION

Year founded	2011
Products and services	SHS
Number of employees	8
Number of customers	3,000 SHS
Number of energy stores	13
Shareholders	100% FRES

Guinea-Bissau, in West Africa, has 1.7 million inhabitants over more than 36,125 km². The country holds the 178th place on the most recent Human Development Index of UNDP. A mere 6% of the nation's rural population has access to electricity. Guinea-Bissau has had a long history of political instability. The elections in 2014 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 meant new instability.

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

Results 2015

Payment rate

The payment rate in 2015 was 78%, lower than the 87% in 2014. Strict procedures for fee collection, a strict policy for disconnecting customers, and the assessment of the purchasing capacity of customers were not yet applied in a consistent way.

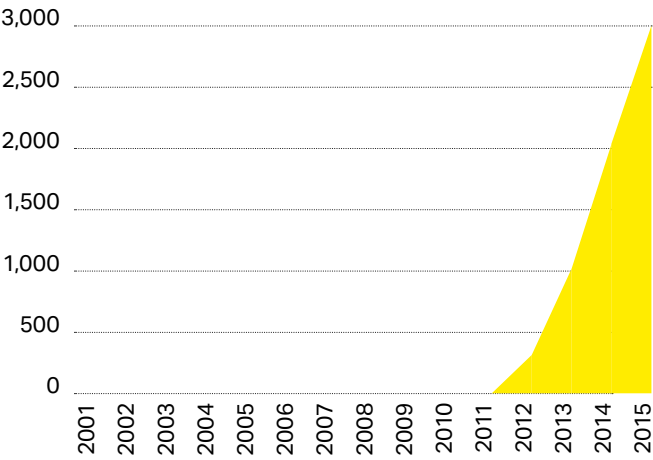
Operational and replacement costs

The company exceeded its budget for 2015 by 42%, due to incorrect budgeting and due to additional costs such as unforeseen costs that were not taken into account such as trainings, international travels, commission fees paid to subcontractors and labor costs related to the manufacturing of the local materials SHS systems.

Number of customers

2015 was another successful year for FRES Guiné-Bissau with regard to customer growth. In 2015 the company registered a net growth of 959 customers, finishing the year in line with the EU target of 3,000 customers.

NUMBER OF CUSTOMERS



Financial sustainability

The company increased its cost coverage from 84% to 137%, while its long term cost coverage increased from 54% to 74%. It hopes to reach financial sustainability within a few years. This will require further growth of the number of customers to enable the company to generate sufficient operational cash to build up reserves for future replacements.

Contracts and investments

The present subsidy contract with the EU concerning FRES Guiné-Bissau calls for 3,000 households or small businesses to be connected by the end of 2015. The company achieved its customer targets and did so at considerably lower costs than budgeted. As a result an additional 700 SHS were procured to connect more customers under the same budget. The EU project has been extended until end-2016 to provide FRES Guiné-Bissau with sufficient time to connect the additional customers.



Products, services and rates

In 2015 FRES Guiné-Bissau provided SHS services on three service levels from CFA 1,500 (€ 2.3) a month to CFA 5,000(€ 7.6) a month. Around 52% of the customers chose the lowest service level, 47% the medium level, and 1% the high service level.

Organisation, governance and supervision

On 31 December 2015, FRES Guiné-Bissau employed eight people directly and 50 (of which eight male and three female store managers) indirectly, on a commission basis.

Workforce profile 2015

Number of employees	8
Male / Female	5 / 3
Permanent / temporary contract	8 / 0
Fulltime / part-time	8 / 0
Inflow / outflow men	1 / 0
Inflow / outflow women	0 / 0
Employees aged 15-24	0
Employees aged 25-34	6
Employees aged 35-54	
Employees aged 55 or over	2
Number of men / women in MT	4 / 0
Number of male / female interns	1 / 0

Salary and terms of employment

The seven employees with a permanent contract are provided with health insurance. In 2015 the starting salary of an employee of FRES Guiné-Bissau in an operational function was 55,000 FCFA (€ 84) a month, while the legal minimum wage is 21,500 FCFA (€ 33) a month. The difference with other FRESco's is that many functions that exist in other companies are outsourced and executed on a commission basis. All employees had at least one performance evaluation.

Health, Safety and Environment (HSE)

Two motor vehicle accidents occurred in 2015. Precautions were taken to avoid accidents in the future, such as no working or driving at night, and checking the mandatory use of appropriate work clothing and safety shoes when on duty.

A total of 35 days were lost to sickness and accidents in 2015.

Staff development

28 indirect employees (25 men and 3 women) followed a technical training and store training provided by the general manager. Three technicians attended the 7-day technical Train the Trainers programme in Uganda.

Management and governance

The general manager of FRES Guiné-Bissau is Reinder Bouwmeester. He reports to the Board of Directors of FRES Guiné-Bissau, consisting of:  
Everard Geurtsen - Chairman  
Caroline Nijland - Member

Challenges and objectives

The 2016-2020 business plan of FRES Guiné-Bissau is aimed at achieving the revised EU target of 3,700 customers by the end of 2016. A solar mini-grid system in Contuboel for 300 customers will be developed, provided that a sustainable rate structure and the necessary financing can be arranged.

IMPACT OF FRES COMPANIES 2015



<b>34,146</b> <b>Households</b>	<b>4,266</b> <b>Businesses</b> <b>(generating</b> <b>income)</b>	<b>199</b> <b>Schools</b>	<b>142</b> <b>Health clinics</b>
362,654 People benefitting based on household customers	1,158,700 Customers of these businesses	53,650 Children attending these schools	79,250 Patients of these health clinics



<b>225</b> <b>Government</b> <b>buildings</b>	<b>111</b> <b>Religious</b> <b>buildings</b>	<b>684</b> <b>Villages in</b> <b>which the companies</b> <b>operate</b>	<b>53</b> <b>Energy stores</b>
3,630 Officials working in these buildings	17,205 People visiting these buildings	10 Villages with Public Lighting	<b>20</b> <b>Service agents</b>



# III. FRES CORPORATE

## 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) and is the head office organisation of FRES 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 of great value to the FRES activities. The employees of FRES Netherlands are supervised by the Board. A performance review with each employee takes place annually.

### **Paid employees**

At the end of 2015, FRES Netherlands had a total of six paid employees. In 2015, some six days were spent on training and education during working hours. Two employees followed courses that benefitted their work outside working hours.

### **Volunteers**

In 2015, five experts worked on specialist tasks for FRES on a pro bono basis. Moreover, three students of the Delft University of Technology performed research in Uganda.

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



# FUNDRAISING

## Policy, strategy and objectives

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

FRES aims to obtain subsidies from governments and multilateral international organisations to find 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

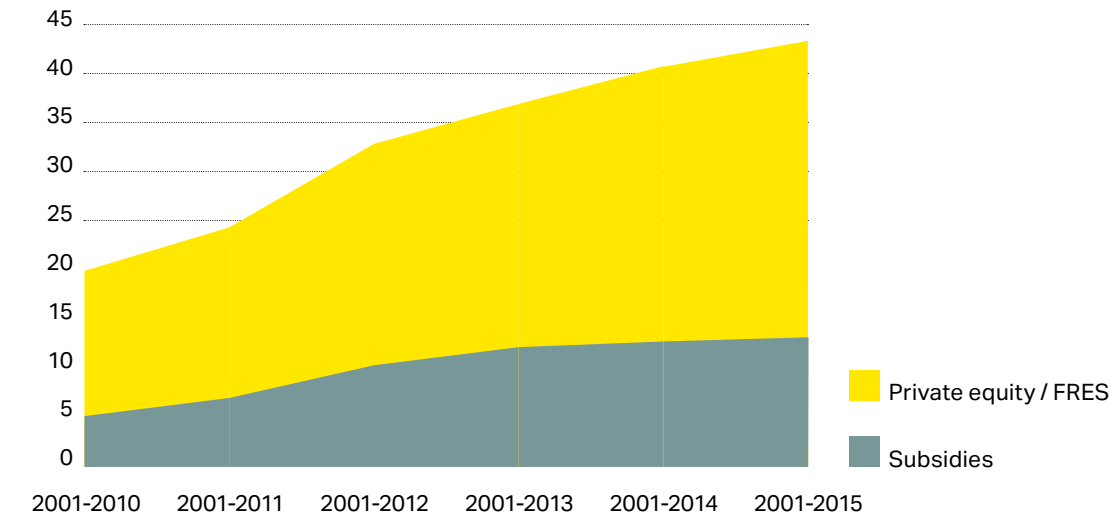
FRES currently has running subsidy contracts valid until 2018. Under these contracts € 9.6 million (existing and new contracts) is available. With a further € 1.5 million which we aim to contract in 2016 this will enable 11,000 additional customers by the end of 2018.

## Investments

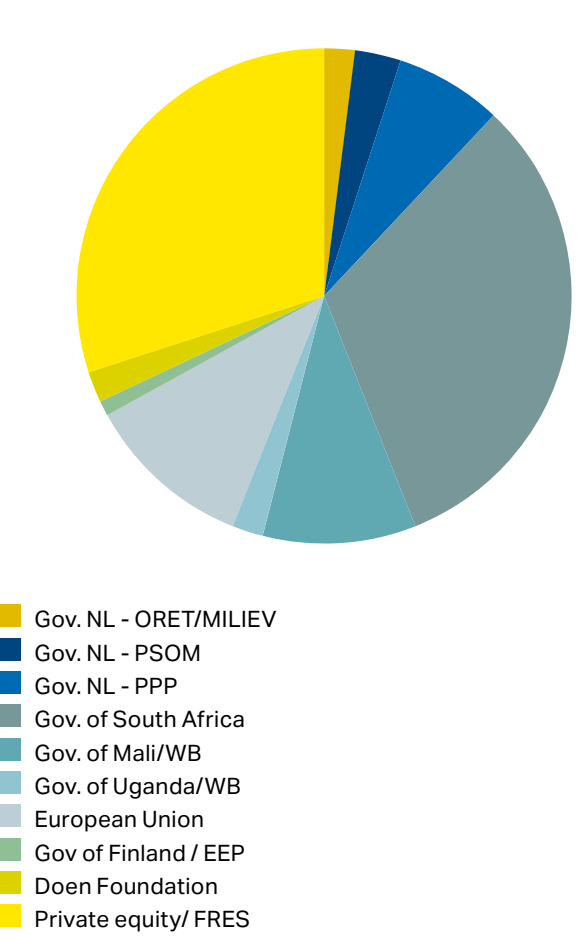
In the period 2001-2015, FRES invested a total amount of € 43.3 million in FRES companies, of which € 30.1 million was financed through various subsidies and € 13.2 million via private funds.

## INVESTMENTS 2001-2015

(in million euros)



## TOTAL INVESTMENTS PER SUBSIDY SOURCE



## Subsidies

- In 2015, FRES signed three new subsidy agreements with:
- The Government of Finland (EEP: Energy and Environment Partnership) with a subsidy value of € 600,000, to scale up SHS activities in Uganda.
  - The Department of Energy of South Africa with a subsidy value of € 1.05 million to scale-up SHS activities in South Africa.
  - 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.

A subsidy proposal submitted to GSEP (Global Sustainable Energy Partnership) was not successful.

External mid-term and final project evaluations are carried out. Effectiveness is monitored from the perspective of FRES' two key stakeholders:

- Donors who are concerned 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 2015, FRES received business donations from Alliander, which covered part of our desk expenses and the salary of the Director Business Development. These contributions were part of the agreement for a period of four years (2012-2015). A new partnership agreement for the period 2016-2020 is expected to be signed in early 2016.

Voltiq B.V. made a Christmas donation to FRES at the end of 2015.

## Private donations

Donations have been received directly from 15 private donors. Indirectly we received private donations from Nuon employees who chose to give the value of their Christmas gift box to FRES, and from 1,831 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 2015 will be used for Yeelen Kura in Mali in 2016.

## Complaints

In case FRES receives a complaint from a private donor, we take action within one working day. After receiving the complaint we contact the person who submitted it and offer a solution. We did not receive any complaints in 2015.



# PARTNERS

For FRES, it is extremely important to work with others. We do this in various forms of cooperation. Below you can find an overview of our present partners in order of the year in which the cooperation started.

**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 into 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.

**2006** 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 concerned the allocation of a subsidy within the framework of the ACP-EU Energy Facility. This cooperation 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 of two new subsidy contracts. These contracts 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 decided unilaterally to terminate the subsidy agreement with FRES, after having frozen disbursement of the subsidy in 2010 because of doubts whether FRES would achieve its goals. A claim for disbursement of over € 5 million in subsidy funds is subject of a court case. The outcome of these legal proceedings is pending.

**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 Guinée-Bissau in 2012. At the moment the legal implications of providing electricity to customers via solar powered mini-grids are under discussion.

**2010** 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.

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

**2010** 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.

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

**2010** In 2010 FRES became a member of PARTOS, the Dutch association for NGOs working in international development. The association represents 120 Dutch development organisations that work 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 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.

**2011** PUM sends senior experts to companies and organisations in developing countries and upcoming markets, offering their expertise for a period of two to three weeks. In 2015 the cooperation agreement (which started in 2011) was extended for another two years for the realisation of eight assignments in total.

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

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

**2011** In 2011, FRES signed an agreement with Alliander formalising the (until then) informal cooperation of sharing of 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 is local partner, the NGO Daridibó in Guinea-Bissau, FRES successfully requested a subsidy of € 2.5 million from the ACP EU Energy Facility Programme. An agreement for cooperation and exchange of expertise and support was signed in 2012.

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

**2013** 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 was nominated for the position of Vice-President of the Board.

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

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

**2015** 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.

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

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





# GOVERNANCE

## Board

In 2015, The FRES Board consisted of three members: Annemarie Goedmakers (CEO/President), Serge Leijten (CFO/Treasurer) and Joop Lasseur (COO/member). The Board of FRES 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 Director.

- A total of 11 board meetings took place over the year. The following points were discussed, among others:
- 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 2014;
  - Business Plan 2016-2020 and annual plan / budget 2016;
  - composition and role of the Supervisory Board;
  - legal procedures and a court case involving a subsidy contract between FRES and the Dutch Directorate-General International Cooperation (DGIS);
  - 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 Board to prevent excessive expenses. In 2015, costs made by Board members mainly consisted of telephone and travel expenses.

## Supervisory Board

- In 2015, the Supervisory Board consisted of Aad Veenman (Chairman) and, on behalf of main sponsor Nuon, Peter Smink (Secretary). There was one vacancy. They met twice to discuss and decide on:
- the annual accounts and annual report 2014;
  - Business Plan 2016-2020 and annual plan / budget 2016.

## 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](http://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](http://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 NL. 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 the FRES companies held monthly progress meetings with the members of their BoD and their FRES liaison officer via teleconferences. In addition, the Directors visited the companies at least twice in 2015.

Two managers of every FRES company attended the FRES Company Week in the Netherlands from 1-5 June 2015 where business results of 2014 were evaluated, and the future strategy and business plans were discussed with the FRES Board and Company Directors.

## Outlook 2016 and beyond

In December, the FRES Board adopted the Business Plan 2016-2020. After significant customer growth in recent years, it has sharpened the performance objectives for its local companies to better reflect FRES' objective of creating financially sustainable companies. Customer growth is now linked to subsidy agreements with donors. 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, with strategies to control costs and maximise revenue. The companies will have to become financially independent, with income from customer fees sufficient to pay for maintenance, operational management, and replacement investments, while staying at the once reached customer level.

Training and personal development of local staff continues to be important. In early 2015, FRES launched its 'train the trainers' programme for solar technicians from all FRES companies. In 2016, the programme will shift to focus on marketing and promotion of the fee-for-service business model within FRES companies. The objective of the training is to 'train future trainers' in each company. Participants will 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

# FINANCIAL SUPERVISION

local trainers ready to train new colleagues as they are recruited.

## 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 inspectors 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

As of 2009, the management of 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.

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, no more than 30-50% is invested in shares, and up to 10% of the funds remain liquid. In order to control the risks, the asset manager works in accordance with a structured investment process within clearly defined frameworks. We invest the funds across a variety 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 the chosen benchmark, and analyses the differences in performance. Based on these results, the Board of FRES decides whether or not the investment policy has to be adjusted. The portfolio is continuously screened on the sustainability criteria that have been set.

See Part IV for the value development of the investment portfolio.





# RISK MANAGEMENT

## Strengths and weaknesses, opportunities and threats

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;
- Two FRES companies have existed for over ten years in a market with very few professional players;
- Major experience in acquiring subsidies;
- Strong partners in the Netherlands;
- A solid Business Plan 2016-2020 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;
- 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 growing 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 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

- Inadequate legal opportunities to address fraud;
- Political instability;
- Increasing transport expenses;
- 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.

## Utilising opportunities, countering threats and fighting weaknesses

Identifying and controlling risks is one of the responsibilities of the FRES Board. In order 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, and do not expand too quickly to other countries. Instead we increase the scale of the existing companies to reduce the cost price.
- 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 reduce the risk of low purchasing power by selecting regions with an economy that also serves markets outside the own region.
- We purchase the solar systems centrally, unless local procurement is competitive with regard to 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. Plans are in development to adopt a standardised HSE policy across all companies. Some risks that received special attention in 2015 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, maintenance and replacement. Together, FRES and its local companies have set key performance indicators (KPIs) which are monitored via monthly reports. The performance of FRES companies is assessed on payment rate; operating and replacement costs; customer retention/ growth; and financial sustainability.

### 2. Sustained growth

Since 2014, subsidies for rural electrification have increased. And more will become available still: during the 21st Conference of the Parties to the UNFCCC in 2015, many agreements were signed for financial support for





developing countries to finance the transition towards low-carbon, resilient economies before and after 2020.

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 providing a continuous flow of investment proposals to donors and maintaining a good relationship with them.

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 March 2014 two experts from PUM visited NuRa (and Yeelen Kura) to study the data, processes and SHS online management system, resulting in a preselection of possible ERP solutions for all FRES companies. In 2015 investigations continued but the proper and practical solution for a central data management system has not yet been found.

4. Payment arrears

Maintaining an acceptable payment rate is an ongoing 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 have been used to mitigate the risk of low payment rates. In 2015, FRES started a pilot project with an advanced prototype pre-paid system for SHS. This pilot will be evaluated in the first half of 2016.

5. Political instability and threats of terrorism

Developments in West Africa show that political stability is a factor we need to take into account. 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 also has consequences for the employees. Political stability is one of the screening criteria that FRES uses before deciding to start activities in a particular 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 crisis management plan that will be finalised mid-2016.

6. High fuel prices

Although oil prices went down on the global markets, this has little effect on the diesel prices in the countries in which we operate. A large part of our operational expenses consists of transport costs needed to perform installation and maintenance activities. We expect diesel prices to

increase 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.

Furthermore, our diesel mini-grid and those solar mini-grids that use diesel as more than back-up are operating at a loss because the high fuel costs cannot be passed on to customers at current rate levels. FRES has replaced and will replace its diesel generators in Mali with solar power plants in order to reduce exposure to the volatile diesel price. We aim for solar powered plants with diesel only as back-up. Moreover, Yeelen Kura is developing demand side management (DSM), for example by load shedding to minimise the use of diesel.

7. Rates for solar mini-grids

Rates for Yeelen Kura's solar mini-grids are currently sufficient for covering operational expenses, but insufficient for accumulating the necessary financial reserve to enable the replacement of key mini-grid components in the long term. Yeelen Kura continues to work closely with Mali's Rural Electrification Agency (AMADER) to increase rates to financially sustainable levels but progress was minimal and insufficient in 2015. The commissioning of a solar mini-grid in Guinea-Bissau in 2016 will depend on securing approval for a sustainable rate structure.

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 will be carried out in early 2016.

9. Fraud prevention

Too often, FRES has to deal with 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. In 2015 weaknesses in governance and accountability and laxity in the management of one of the FRESco's led to the implementation of a standardised policy for the delegation of authority and authority limits for FRESco's and will lead to stricter and more frequent internal audits in 2016.

10. Continuity reserve

The Board has created a continuity reserve of € 250,000, in case the activities of FRES should suddenly stop (either partly or completely) for whatever reason. Should this occur, it would especially have consequences for FRES Netherlands. With the reserves, we can properly complete the remaining activities in Amsterdam.

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 have to be developed by FRESco's to meet local needs.

We use several communication tools:

- we report and discuss the progress of projects with our donors on a regular basis;
- digital Flash Reports keeps 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;
- all 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.

Activities 2015

- In May and November, FRES stakeholder meetings took place in the Nuon headquarters in Amsterdam and Antropia, Driebergen (NL) respectively. Both meetings were well attended.
- We sent out seven Flash Reports in 2015.
- The English and French versions of the FRES 2014 Annual Report were published in May (digital and print). The report was positively evaluated in the PwC Transparency Awards, particularly with respect to compliance, impact and communication. FRES scored above average. Furthermore FRES was awarded a triple-A rating from PwC's Transparency Price for the report, placing it among the leading group of 16 organisations to receive such a rating.
- FRES has committed to the Global Reporting Initiative (GRI), the leading organisation for reporting on sustainability. The idea behind GRI is to help organisations chart their sustainability efforts. In this annual report, we have implemented version G4 requirements into the overall reporting. See the GRI index in appendix 6.
- In March, FRES presented its experience in developing rural electrification projects at the International ARE Energy Access Workshop in Madrid.
- In April, FRES presented its experience in mini-grids in Africa at the Energy Storage World Forum in Rome.
- In April, FRES launched its revised website.
- In June, FRES was a panellist at the Vienna Energy Forum side event 'RE-Think the Energy Gender Nexus: Adding Value to Sustainable and Inclusive Development in the Energy Sector'.
- In September, FRES was awarded the 'Off-grid Experts Award' under the Project category at the Phaesun Off-Grid Experts workshop in Germany. The award recognises FRES' work for village power supply in Mali through the replacement of diesel generators by solar power for mini-grids and the commissioning of new solar mini-grids in additional villages.
- In October, FRES presented its experience in financing clean energy electrification projects at the South African International Renewable Energy Conference (SAIREC) in Cape Town.
- In November, FRES presented its experience in financial reporting for projects financed by the EU at the 'EU Financial Accounting in International Cooperation and Development Projects' workshop in Berlin.



# IV. FINANCIAL REPORT

## ANNUAL ACCOUNTS 2015

### CONSOLIDATED BALANCE AS AT DECEMBER 31, 2015 (after appropriation of results)

	December 31, 2015 €	December 31, 2014 €
<b>Assets</b>		
<b>1. Fixed Assets</b>		
1.1 Property, plant and equipment	6,534,439	6,701,675
<b>2. Current Assets</b>		
2.1 Receivables	1,038,074	846,009
2.2 Inventory	42,746	44,843
2.3 Securities	5,080,861	4,780,584
2.4 Cash and cash equivalents	3,020,834	2,026,310
	9,182,515	7,697,746
<b>Total</b>	<b>15,716,954</b>	<b>14,399,421</b>
<b>Equity and liabilities</b>		
<b>3. Reserves</b>		
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	9,270,643	7,758,982
3.4 Reserve financing assets	1,578	2,411
3.5 Reserve currency difference	26,925-	9,751
	12,495,296	11,021,144
<b>4. Funds</b>		
4.1 Fund Donation Nuon	748,200	1,166,387
	13,243,496	12,187,531
<b>5. Current liabilities</b>		
5.1 Payables and other accruals	2,473,458	2,211,890
<b>Total</b>	<b>15,716,954</b>	<b>14,399,421</b>



CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE FOR 2015

	Actual 2015 €	Budget 2015 €	Actual 2014 €
<b>6. Income</b>			
<b>Income from our own fundraising</b>	<u>217,002</u>	<u>178,000</u>	<u>212,354</u>
Income from our own fundraising - private persons	10,065	3,000	11,256
Income from our own fundraising - companies	206,937	175,000	201,098
<b>Subsidies</b>	<u>3,313,067</u>	<u>2,240,000</u>	<u>1,477,670</u>
Subsidies from governments	3,313,067	2,240,000	1,182,749
Other subsidies	-	-	294,921
<b>Financial income and expenses</b>	193,956	247,000	768,938
<b>Other income</b>	<u>2,484,319</u>	<u>2,000,000</u>	<u>3,396,456</u>
Income Yeelen Kura from regular company activities	1,403,027	1,050,000	1,381,737
Income Yeelen Kura from non-regular company activities	169,494	-	1,095,787
Income FRES Uganda from regular company activities	450,869	650,000	508,292
Income FRES Guiné-Bissau from regular company activities	460,929	300,000	410,640
<b>Sum of the income</b>	<b>6,208,344</b>	<b>4,665,000</b>	<b>5,855,418</b>
<b>7. Expenses</b>			
<b>Spent on objectives</b>			
<b>Expenses for regular company activities</b>	<u>2,410,632</u>	<u>1,530,000</u>	<u>1,985,559</u>
Yeelen Kura, Mali	714,525	780,000	821,325
NuRa, South Africa	13,612	-	51,930
Yeelen Ba, Burkina Faso	50,249	-	55,042
FRES Uganda, Uganda	1,228,965	400,000	628,943
FRES Guiné-Bissau, Guinea-Bissau	403,281	350,000	428,319
<b>Expenses for company expansion</b>	<u>2,021,884</u>	<u>2,225,000</u>	<u>1,358,075</u>
Yeelen Kura, Mali	1,527,442	775,000	672,278
NuRa, South Africa	493	-	290
Yeelen Ba, Burkina Faso	108,648	-	146,380
FRES Uganda, Uganda	193,750	850,000	-
FRES Guiné-Bissau, Guinea-Bissau	191,551	600,000	539,127
<b>Expenses for replacements</b>	<u>103,321</u>	<u>290,000</u>	<u>220,998</u>
Expenses Yeelen Kura replacements	36,831	130,000	70,401
Expenses Guiné-Bissau replacements	12,447	10,000	-
Expenses Uganda replacements	54,043	150,000	150,597
<b>Expenses for new initiatives</b>	<u>22,641</u>	<u>45,000</u>	<u>3,196</u>
New initiatives remaining countries (Cameroon)	22,641	45,000	3,196
<b>Subtotal</b>	<b>4,558,478</b>	<b>4,090,000</b>	<b>3,567,828</b>

CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE FOR 2015 (CONTINUED)

	Actual 2015 €	Budget 2015 €	Actual 2014 €
<b>Subtotal</b>	<b>4,558,478</b>	<b>4,090,000</b>	<b>3,567,828</b>
<b>FRES service costs spent on objectives</b>	<u>405,456</u>	<u>563,000</u>	<u>465,724</u>
Direct support existing companies	242,280	328,000	281,717
Direct support expansion companies	127,302	225,000	181,020
Direct support new initiatives	35,874	10,000	2,987
<b>Total spent on objectives</b>	4,963,934	4,653,000	4,033,552
<b>FRES service costs management &amp; administration</b>	<u>151,769</u>	<u>137,000</u>	<u>69,050</u>
Direct costs	9,657	6,000	3,969
Indirect costs and costs from investments	142,112	131,000	65,081
<b>Sum of the expenses</b>	<b>5,115,703</b>	<b>4,790,000</b>	<b>4,102,602</b>
<b>Result</b>	<b>1,092,641</b>	<b>125,000-</b>	<b>1,752,816</b>

The budget of 2015 that is stated in the annual account of 2014 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 2015 €	Budget 2015 €	Actual 2014 €
<b>The result of 2015 is appropriated as follows:</b>			
Reserve for future projects	1,511,661	125,000-	2,580,152
Reserve financing assets	833-	-	421-
Fund donation Nuon	418,187-	-	826,815-
<b>Total</b>	<b>1,092,641</b>	<b>125,000-</b>	<b>1,752,916</b>



CONSOLIDATED CASH FLOW STATEMENT 2015

	December 31, 2015		December 31, 2014	
	€		€	
Income from private persons, companies, institutions and governments	5,485,374		5,750,957	
Payments to supplier, employees and projects	-3,680,889		3,274,713-	
Cash generated from operating activities		1,804,485		2,476,244
Received interest, realised result investments and balance deposits and withdrawals investments		193,956		768,938
Cash flow from operational activities		1,998,441		3,245,182
Investments in property, plant and equipment	967,241-		2,795,331-	
Investments subsidies	-		114,332	
Granted loans	-		-	
Cash flow from investment activities		967,241-		2,680,999-
Cash flow from financing activities		-		-
Cash flow		1,031,200		564,183
Exchange rate and conversion differences		-36,672		-
Net cash flow		994,528		564,183
Cash as on January 1		2,026,310		1,462,127
Net cash flow		994,528		564,183
Cash as on December 31		3,020,834		2,026,310

NOTES TO THE CONSOLIDATED ANNUAL ACCOUNTS

General

FRES was founded in 2004 and is registered 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

As from 2015, the group includes four companies: Yeelen Kura S.A., FRES Uganda Ltd,FRES Guiné-Bissau and FRES Cameroon. FRES is the 100% owner of all companies.

ANBI

FRES is since 2007 designated as a ANBI (Public Benefit Organisation). As of January 1st 2014 new conditions applied to ANBIs as they had to publish various data on

an internet site. In 2015 FRES has updated the required data on its internet site to comply with the new ANBI requirements.

Consolidation

Intercompany transactions, results and 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 in order to align them to the prevailing group accounting policies.

The consolidation includes the financial information of FRES, its group companies and other entities where it is responsible for the overall management. Group companies are entities in which FRES exercises direct control based on the ownership of more than half of the voting

rights. 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 from EDF and Nuon at the end of 2008. FRES acquired this company from the aforementioned parties for an amount of € 1. Yeelen Kura is a 100% subsidiary of FRES. FRES Uganda Limited was founded in 2010 and FRES Guiné-Bissau S.A. in 2011, both are a 100% subsidiary of FRES. In addition, FRES has interests in the entities below. They are currently not involved in the consolidation.

	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. The company was formally founded in 2011 to be able to lay claim to a concession area and exemption from taxes. No activities have taken place in Benin in 2015.

FRES Cameroon was founded in 2015 as a 100% subsidiary of FRES. The company was formally founded in 2015 to be able to lay claim to a concession area and exemption from taxes. The company might be operational in 2016 or 2017 when the authorisation for operation and exemption from taxes have been secured.

NuRa and Yeelen Ba 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

The annual accounts have been prepared in accordance with the Guideline for annual reporting 650 for ‘Charity organisations’, as issued by the Dutch Accounting standards Board. The objective of this guideline is to provide insight into the expenses and the utilisation of funds in

relation to the objectives for which the funds were collected. The annual accounts are presented in Euros.

Functional currency

Items included in the annual accounts of the 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. 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.

Property, plant and equipment

Property, plant and equipment are stated at historical cost, minus cumulative depreciation and, if applicable,



NOTES TO THE CONSOLIDATED ANNUAL ACCOUNTS (CONTINUED)

impairment losses. Depreciation is based on the estimated useful lives of tangible fixed assets, and is calculated upon a fixed percentage of the historical cost, taking into account the possible residual value.

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, and 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 fund-raising activities and other income, minus the 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. 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 when FRES acquires the right to them.

Taxes

The foundation is not obliged to pay company tax or turnover tax. It obtained and has maintained the ANBI status since 2007.

NOTES TO THE CONSOLIDATED BALANCE SHEET ITEMS

1.1 Property, plant and equipment

	Installations and mate- rials FRES Guiné-Bissau	Installations and mate- rials FRES Uganda	Land and buildings Yeelen Kura and SSD	Installations and mate- rials Yeelen Kura en SSD	Computers, software and office equipment	Total
Historical cost	-	2,007,095	613,844	8,201,285	21,986	10,844,210
Accumulated depreciation and impairments	-	438,493	214,097	3,433,698	19,575	4,105,863
<b>Balance as on January 1</b>	<b>-</b>	<b>1,568,602</b>	<b>399,747</b>	<b>4,767,587</b>	<b>2,411</b>	<b>6,738,347</b>
Movements						
Investments/disposal	-	249,068	-	718,173	-	967,241
Received subsidies and gifts	-	-	-	-	-	-
Exchange differences	-	36,672	-	-	-	36,672
Depreciation	-	362,940	85,095	722,281	833	1,171,149
<b>Total movements</b>	<b>-</b>	<b>77,200-</b>	<b>85,095-</b>	<b>4,108-</b>	<b>833-</b>	<b>167,236-</b>
Historical cost	-	2,256,163	613,844	8,919,458	21,986	11,811,451
Accumulated depreciation and impairments	-	801,433	299,192	4,155,979	20,408	5,277,012
<b>Balance as on December 31</b>	<b>-</b>	<b>1,454,730</b>	<b>314,652</b>	<b>4,763,479</b>	<b>1,578</b>	<b>6,534,439</b>

<b>Depreciation percentage</b>	<b>10%-33%</b>	<b>10%-33%</b>	<b>4-20%</b>	<b>10%-33,3%</b>	<b>20%</b>
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	

Land and installations of Yeelen Kura relate to the assets that have been obtained as part of the acquisition from EDF and Nuon at the end of 2008, as well as the investments of Yeelen Kura after 2008, among other things, including the solar power stations in Mali.

In 2015, Property, plant and equipment (fixed assets) are much lower than in 2014 because especially Yeelen Kura invested much less in installations and materials than in 2014 while depreciations continue.



NOTES TO THE CONSOLIDATED BALANCE SHEET ITEMS (CONTINUED)

2.1 Receivables

	31-12-2015 Total	> 1 year	31-12-2014 Total	> 1 year
Receivables Yeelen Kura	297,167		269,367	
Receivables FRES Uganda	100,508		103,749	
Receivables FRES Guiné-Bissau	139,130		47,958	
Subsidies Worldbank/Government FRES Uganda	105,222		354,826	
Subsidies Nuon/EU Burkina Faso	206,961		49,607	
Prepayments FRES	3,383		2,973	
Prepayments FRES Uganda	5,751		-	
Other receivables and accrued income FRES	166,013		17,529	
Other receivables and accrued income Yeelen Kura	5,015		-	
Other receivables and accrued income FRES Guiné-Bissau	8,924		-	
<b>Total</b>	<b>1,038,074</b>	<b>-</b>	<b>846,009</b>	<b>-</b>

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 consist of two expected payments by Yeelen Kura to FRES of respectively € 76.224,50 and € 40.770,50, donations from N.V. Nuon customers (€ 13.116,50) for the second half of 2015 that had yet to be received on the balance date as well as the 2015 interest that had yet to be received at the end of 2015.

2.2 Securities

	2015	2014
Shares	2,564,935	2,532,300
Bonds	2,487,060	2,210,933
Increased coupon interest bonds	28,866	37,351
<b>Total</b>	<b>5,080,861</b>	<b>4,780,584</b>

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

In 2009, the foundation formulated an investment policy. The investment activities are executed by ING and monitored by the FRES Board. The return on the securities amounted to 6,3% in 2015 (13.0% in 2014). The FRES Board evaluated the investment policy and decided not to make any changes.

2.3 Cash and cash equivalents

	2015	2014
ING Bank	24,105	30,855
ING Bank, beleggingsrekening	2,534	10,766
ING Bank, deposit	2,750,857	1,667,719
ASN Bank	488	482
Bank credits Yeelen Kura	149,542	73,862
Bank credits FRES Uganda	46,796	235,179
Bank credits FRES Guiné-Bissau	45,986	7,269
Cash	526	178
<b>Total</b>	<b>3,020,834</b>	<b>2,026,310</b>

The amount of ING Bank deposit includes a guarantee of € 1,036,927 for an EU project and is therefore not freely available. The increase in 2015 (€ 1,038,138) in comparison to 2014 is due to transfers from the operational account of advanced payments that FRES has received from donors (EU and OFID) for the running projects. This cash and other cash equivalents are freely available and being used for the operational activities and the objectives of FRES.

3. Reserves

3.1 Continuity reserve FRES Netherlands

This concerns a continuity reserve for FRES Netherlands. With this reserve, it is possible to shoulder the non-variable part of the expenses of FRES Netherlands for a period of six months.

	2015	2014
Balance as on January 1	250,000	250,000
Appropriation of results	-	-
<b>Balance as on December 31</b>	<b>250,000</b>	<b>250,000</b>

NOTES TO THE RESERVES AND FUNDS

3.2 Reserve for pre-financing future investments  
FRES Companies

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

	2015	2014
Balance as on January 1	3,000,000	3,000,000
Appropriation of results	-	-
<b>Balance as on December 31</b>	<b>3,000,000</b>	<b>3,000,000</b>

3.3 Reserve for future projects

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

	2015	2014
Balance as on January 1	7,758,982	5,178,830
Appropriation of results	1,511,661	2,580,152
<b>Balance as on December 31</b>	<b>9,270,643</b>	<b>7,758,982</b>

3.4 Reserve financing assets

This reserve was formed by FRES NL based on the Guideline for annual reporting 650 for ‘Charity organisations’ and equals the total book value of the property, plant and equipment of FRES NL. Because this guideline 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.

	2015	2014
Balance as on January 1	2,411	2,832
Appropriation of results	833-	421-
<b>Balance as on December 31</b>	<b>1,578</b>	<b>2,411</b>

3.5 Currency difference

	2015	2014
Balance as on January 1	9,751	2,237-
Appropriation of results	36,672-	11,988
<b>Balance as on December 31</b>	<b>26,921-</b>	<b>9,751</b>

This reserve relates to the exchange differences between Uganda’s shillings (UGX) and euro.

4. Funds

4.1 Funds Donation Nuon

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

	2015	2014
Balance as on January 1	1,166,387	1,993,302
Appropriation of results	418,187-	826,915-
<b>Balance as on December 31</b>	<b>748,200</b>	<b>1,166,387</b>

5. Payables and other accruals

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

	2015	2014
Creditors FRES Netherlands	12,058	10,050
Other payables Yeelen Kura	2,106,133	2,063,474
Other payables FRES Uganda	201,866	56,436
Other payables FRES GNB	27,084	3,808
Other payables FRES	126,317	78,123
<b>Total</b>	<b>2,473,458</b>	<b>2,211,891</b>

Commitments and contingencies not included in the balance sheet

There is an annual rent obligation for Amstel 49 in Amsterdam at the amount of € 13,200.

FRES lodged 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. If the high court rules in favor of FRES, the DGIS will need to pay the additional funds as agreed upon at the commencement. If the ruling is not favorable for FRES there will be no (financial) consequences for the entity.



NOTES TO THE CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE

<b>General</b>			<b>Specification from the EU Regional subsidy</b>		
The donations relate to the income from own fundraising activities.			Project financing	<b>2015</b>	<b>2014</b>
<b>Continuity of the activities</b>			EU Regionale Mali	352,555	-
In 2015, a new SHS systems were purchased in order to connect new customers in Mali, Uganda and Guinea Bissau. A total of 1,739 new customers were connected.			EU Regionale Uganda	269,601	-
			EU Regionale Guinea-Bissau	155,539	-
			EU Regionale Cameroon	259,232	-
			<b>Total</b>	<b>1,036,927</b>	<b>-</b>
<b>6. Income and expenses</b>					
<b>6.1 Income</b>			<b>Other subsidies</b>		
<b>Income from own fundraising – private persons</b>				<b>2015</b>	<b>2014</b>
	<b>2015</b>	<b>2014</b>	Stichting Doen (Uganda)	-	294,921
Donation Christmas gift employees Nuon	2,580	3,280	<b>Financial income and expenses</b>		
Donation rent office	3,600	3,600		<b>2015</b>	<b>2014</b>
Private donations	3,885	4,376	Interest bank	125,490-	77,483
<b>Total</b>	<b>10,065</b>	<b>11,256</b>	Result interest bonds	8,484-	127,567
			Dividends	106,020	53,203
			Realised gains/losses shares & bonds	51,333	-
			Unrealised gains/losses shares	178,787	296,794
			Unrealised gains/losses bonds	8,210-	213,891
			<b>Total</b>	<b>193,956</b>	<b>768,938</b>
The funds from private donors received in 2015 will be used in 2016 for Yeelen Kura in Mali.			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 € 193,956 included an amount of € 51,333 realised results on the investments. The return is significantly lower than realised in 2014 because of changes in market conditions. Cash equivalents were kept on the current account and deposit account at credit institutions with at least an “A” credit rating.		
<b>Income from own fundraising - companies</b>			<b>Other income</b>		
The donations from companies can be specified as follows:				<b>2015</b>	<b>2014</b>
	<b>2015</b>	<b>2014</b>	Income Yeelen Kura	1,403,027	1,381,737
Payroll costs Alliander for Director Business Development	114,000	113,933	Income Yeelen Kura	169,494	1,095,787
Alliander office expenses	75,000	75,000	Income FRES Uganda	450,869	508,292
Nuon savings campaign	16,937	11,165	Income FRES Guiné-Bissau	460,929	410,640
Voltiq	1,000	1,000	<b>Total</b>	<b>2,484,319</b>	<b>3,396,456</b>
<b>Total</b>	<b>206,937</b>	<b>201,098</b>			
<b>Subsidies from governments</b>					
Project financing				<b>2015</b>	<b>2014</b>
EU Burkina Faso	157,354	263,563	Income Yeelen Kura	1,403,027	1,381,737
EU Guinea-Bissau	652,097	693,484	Income Yeelen Kura	169,494	1,095,787
World Bank/Gov. Uganda	-	225,702	Income FRES Uganda	450,869	508,292
Fragile States Mali	1,316,689	-	Income FRES Guiné-Bissau	460,929	410,640
EU Regionale	1,036,927	-	<b>Total</b>	<b>2,484,319</b>	<b>3,396,456</b>
EEP Uganda	150,000	-			
<b>Total</b>	<b>3,313,067</b>	<b>1,182,749</b>			

**6.2 Comparison actual versus budgeted**  
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 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 2015 - Income

**Income from our own fundraising – companies**  
Alliander donated pay-roll costs and € 75,000 for office expenses.

Income from Subsidies

**Subsidies from Governments**  
Actual subsidies from governments were higher than budgeted because FRES received more advance payments than expected under committed contracts.

Project financing EU Burkina Faso: The EU project has been extended by one and a half years till June 2016. In February 2016 FRES will receive a payment of € 206,961 from the EU which will close out this EU project.

Project financing EU Guinea-Bissau: Under the existing subsidy agreements, an amount of € 652,097 was received from the EU.

Project financing World Bank/Government Uganda: The final contractual amount to be received under existing agreements was already claimed and included in revenues in 2014. Actually received in 2015 is an amount of € 284,387 resulting in less outstanding debts.

Project financing Fragile States Mali: FRES received the first pre-financing amount as agreed in the contracts that was used for purchasing Solar Homes Systems.

Project financing EU regional: FRES received the first pre-financing amount as agreed in the contract that 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 first payment from EEP as agreed in the contract. This was used as co-financing for purchasing Solar Home Systems.

Project financing FRES Guiné-Bissau (UNIDO and ECREEE), Guinea-Bissau: In the budget € 300,000 was included for this project. The submitted request for subsidy in 2014 was in principal approved in 2015 but not yet formalised as ECREEE is still searching for financial contribution to finance the FRES project.

**Other subsidies**  
Project financing Stichting Doen: the final contractual amount was already received in 2014. The project was officially closed in 2015.

**Return on investments in securities and cash**  
The return on investments was € 193,956, it is lower than budgeted, owing to less favourable and volatile market conditions.

Other income

**Income Companies – regular company activities**  
Income Yeelen Kura: The stated income of Yeelen Kura is higher than budgeted. However, the budget did not include disbursements of activated investment subsidies and the consolidation corrections regarding these subsidies. If these are excluded, the income of Yeelen Kura is lower than budgeted. Reasons are related to a conscious choice to not connect new grid customers pending clarity on which villages in the vicinity of Yeelen Kura’s mini-grids will be connected to the national grid. The income increased compared to 2014 because of a higher number of customers.

Income Yeelen Kura, non-regular activities: In 2015 the loan agreement between FRES and Yeelen Kura was cleared up and associated balance sheet items adjusted accordingly

Income FRES Uganda: The income of FRES Uganda is lower than budgeted due to the fact that fewer than expected new customers were connected as the required SHS systems arrived later than expected.

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 fee collection costs were booked as costs rather than reduced income. The increase compared with 2014 is due to a higher number of customers.



NOTES TO THE CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE (CONTINUED)

Actual versus Budget 2015 - Spent on objectives

Expenses for regular company activities

These expenses include the costs incurred for the operational activities of the companies.

Yeelen Kura: The expenses for regular activities were lower than the budget. The company has been effective in reducing costs such as for diesel expenses and staff. Diesel expenses have decreased due to grid improvements leading to less grid losses and therefore less demand.

NuRa: The expenses for regular activities consist fully of travel expenses by FRES employees supporting NuRa and were not included in the budget.

Yeelen Ba: The expenses consist of advances 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. Both were not budgeted for.

FRES Uganda: The expenses for regular activities exceeded the budget mainly because they include taxes (€ 128,954), depreciations (€ 401,313) and expenses for replacements (€ 55,524) while the budget does not include these. Regular expenses are higher than budgeted because of higher than expected costs for transport, personnel and office costs.

FRES Guiné-Bissau: The expenses for regular activities of FRES Guiné-Bissau exceeded the budget due to additional costs such as unforeseen costs that were not taken into account (Train-the-Trainers Workshop in Uganda and the Annual Company Week in The Netherlands). The commission fees paid to subcontractors were previously subtracted from the revenues but as from January 2015 they are added to the “personnel costs”. Moreover, the labor costs related to the manufacturing of the local materials for a SHS system are now booked under “personnel costs” rather than under investments. The expenses are lower than in 2014 because in 2014 all installation materials were taken as costs, while in 2015 part of the installation costs were activated.

Expenses for company expansions

Yeelen Kura: Expenses were far higher than the budget as FRES decided to advance the purchase of the second batch of SHS under the EU regional budget which will be installed in 2016.

NuRa: FRES contribution to SHS investments by NuRa was nearly nil as NuRa managed to cover all of the expenses for new SHS with the government subsidy received till 31 March 2016.

Yeelen Ba: No budget was established for Yeelen Ba due to the fact that no subsidies were available for new SHS for Yeelen Ba. However, some outstanding invoices regarding SHS purchased in 2010 and 2012 and new purchases for led lamps for 2015 have been paid.

FRES Uganda: The actuals are lower than budgeted due to the fact that € 651,922 of the installation materials purchased have been activated.

FRES Guiné-Bissau: The expenses are lower than budgeted because the budget included € 150.000 to prepare for a minigrid in Contebuel which was deferred. Moreover, fewer SHS had to be purchased because, FRES Guiné-Bissau still had stock available, requiring only some extra materials. The investments in 2015 consisted only of these complementary materials.

Expenses for Replacements

Yeelen Kura: The expenses for replacements were lower than budgeted because replacements budgeted for 6 minigrids could be deferred, leaving only costs for replacements on SHS assets. Differences with the costs compared to 2014 are due to differences in activity level..

FRES Uganda: The expenses for replacements are lower than budgeted because part of the replacements costs (€ 55.524) are covered in the expenses for regular company activities. When combined, the expenses for replacements are still lower than budgeted and lower than in 2014 due to the increased use of recycled materials.

FRES Guiné-Bissau: The expenses for replacements are slightly higher than budgeted due to a higher than expected churn in 2015. The expenses are higher than in 2014 because the company was still in the start-up phase and barely experienced any churn.

FRES service costs

The total service costs amounted to € 557.225, consisting of € 405.456 spent on objectives, and € 151.769 spent on management and administration. The actuals are lower than the budget of € 700.000 because more personnel costs could be charged to subsidised projects. The actuals are higher than the actuals of 2014 mainly because of the legal costs for the court case against DGIS and higher administration costs.

A time allocation system is being used to allocate the service costs. The number of FTEs as of December 31st 2015 was 4.7 FTE (2014: 4.7 FTE). Including two freelancers who worked for FRES the number of FTEs amounted to 6.2 FTEs on December 31st 2015 (2014: 6.2 FTE).

6.3 Financial sustainability

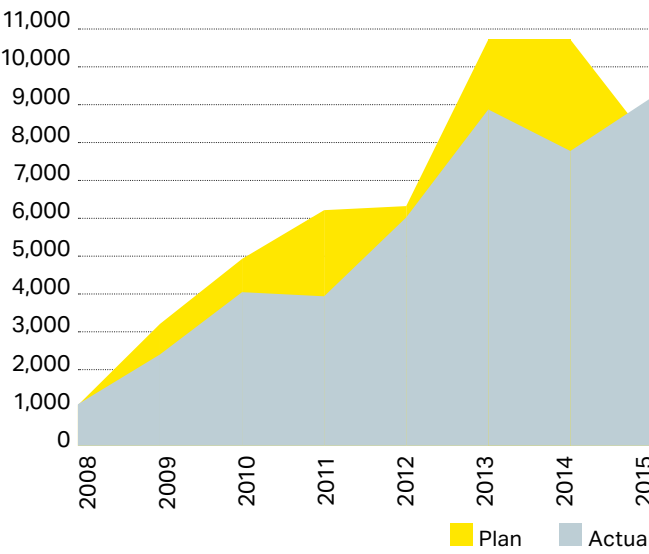
	Income (cash)	Operating and replacement costs
Yeelen Kura	963,594	699,024
NuRa	1,437,302	1,470,534
Yeelen Ba	292,416	259,378
FRES Uganda	450,870	489,505
FRES Guiné- Bissau	432,311	315,025

The financial sustainability of the FRES companies is determined by their ability to generate revenues that are sufficient to cover the expenses for regular operations and replacement. Yeelen Kura, Yeelen Ba and Guiné-Bissau revenues were sufficient to cover the costs. FRES Uganda needs to lower its cost base. NuRa needs to turn around its continued loss of 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.



The expenses and investments have been increasing gradually since 2008. In 2015 actuals are higher than planned because the plan did not include depreciations. They are however included in the actuals. The actuals are higher than in 2014 because of major investments in in FRES Uganda, Yeelen Kura and FRES Guiné-Bissau.

Percentages spent on objectives

In accordance with the Guideline for annual reporting 650 for ‘Charity Organizations’ 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 2015 (2014: 98%). 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 82% for 2015 (2014: 86%). This percentage is calculated as follows: the total of the expenses spent on the objectives divided by the income, received in 2015. These incomes do not include transfers from reserves that were spent on activities in 2015.

Loans

In 2015 and previous years, FRES Netherlands issued several loans to FRES companies. Most of these loans were converted by the FRES Board into gifts. The outstanding amount on loans issued by FRES Netherlands is indicated below:

	2015
Total	8,305,985

Remuneration Board members

The remuneration of the Supervisory Board members and FRES Board members amounted to € 0 in 2015 (2014: € 0). No loans, advances or guarantees were issued to Board members. No employment contract exists between FRES and the Board members.



FOUNDATION'S STATEMENT OF INCOME AND EXPENDITURE FOR 2015

(after appropriation of results)

	December 31, 2015		December 31, 2014	
	€		€	
<b>Assets</b>				
<b>1. Non-current Assets</b>				
1.1 Property, plant and equipment	1,578		2,411	
1.2 Financial assets	5,424,018		5,712,599	
		5,425,596		5,715,010
<b>2. Current Assets</b>				
2.1 Receivables	376,357		70,109	
2.2 Securities	5,080,861		4,780,584	
2.3 Cash and cash equivalents	2,778,510		1,710,000	
		8,235,728		6,560,693
<b>Total</b>		<b>13,661,324</b>		<b>12,275,703</b>
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	9,270,643		7,758,982	
3.4 Reserve financing assets	1,578		2,411	
3.5 Reserve currency difference	-26,922		9,749	
		12,495,299		11,021,142
4.1 Fund Donation Nuon	748,200		1,166,387	
		748,200		1,166,387
		13,243,499		12,187,529
<b>5. Current liabilities</b>				
5.1 Payables and other accruals		417,825		88,174
<b>Total</b>		<b>13,661,324</b>		<b>12,275,703</b>

NOTES TO THE BALANCE SHEET AND STATEMENT OF INCOME AND EXPENDITURE

General principles for preparing the annual accounts

The foundation's stand-alone annual accounts have been prepared in accordance with the Guideline for annual reporting 650 for 'Charity Organizations', 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 have been prepared 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 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.

Subsidiaries

Group companies, to which FRES exercises 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 if and when FRES is fully or partially liable for the debts of the subsidiary, or has the firm intention to enable it to pay its debts.

CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE FOR 2015

	Actual 2015	Budget 2015	Actual 2014
	€	€	€
<b>6. Income</b>			
6.1 Income from our own fundraising	217,002	178,000	212,354
6.2 Subsidies	3,313,067	1,050,000	1,257,047
<b>Sum of the income</b>	3,530,069	1,228,000	1,469,401
		,	
<b>7. Expenses</b>			
Spent on objectives (consolidated budget)	1,920,040	4,090,000	1,447,512
<b>FRES service costs spent on objectives</b>			
Direct support existing companies	242,280	328,000	281,717
Direct support company expansions	127,302	225,000	181,020
Direct support new initiatives	35,874	10,000	2,987
<b>Fres service costs management &amp; administration</b>			
Direct costs	9,657	6,000	3,968
Indirect costs and costs from investments	142,112	131,000	65081
<b>Sum of the expenses</b>	2,477,265	4,790,000	1,982,285
<b>Subtotal</b>	<b>1,052,804</b>	<b>3,562,000-</b>	<b>512,884-</b>
Financial income	291,746	247,000	653,608
Result subsidiary Yeelen Kura	256,083	85,000-	1,208,887
Result subsidiary FRES Uganda	623,530-	110,000-	374,193
Result subsidiary FRES Guiné-Bissau	115,538	140,000	29,012
<b>Result</b>	<b>1,092,641</b>	<b>3,370,000-</b>	<b>1,752,816</b>

NOTES TO THE BALANCE SHEET ITEMS

Financial assets

The movement of the investments in subsidiaries during 2015 is as follows:

	2015	2014
Balance as on January 1	5,712,599	4,088,519
Capital expenditure	-	-
Currency difference	36,672-	11,988
Result subsidiaries	251,909-	1,612,092
<b>Balance as on December 31</b>	<b>5,424,018</b>	<b>5,712,599</b>

Other notes to the foundation's balance sheet

For the other notes, we refer to the notes on the consolidated balance sheet items 2015.



NOTES ON THE STATEMENT OF INCOME AND EXPENDITURE

Other income

For the other notes to the statement of income and expenditure, we refer to the notes on the consolidated income statement 2015.

Expenses

Spent on objectives

Destination	Objective Existing companies		Expansion companies				
	Yeelen Kura	Nura	Yeelen Ba	FRES GNB	FRES Uganda	Yeelen Kura	Nura
Expenditures	€	€	€	€	€	€	€
Subsidies and contributions	171,988	13,612	50,249	76,961	-	788,556	493
Remittances							
Purchases and acquisitions							
Outsourced work							
Publicity and communication	11,007	11,249	8,382	7,287	9,911	5,108	4,943
Personnel expenses	39,682	40,553	30,219	26,270	35,731	18,417	17,819
Accommodation expenses	3,547	3,625	2,701	2,348	3,194	1,646	1,593
Office and general expenses	4,908	5,016	3,738	3,249	4,419	2,278	2,204
Depreciation and interest	3,396-	3,470-	2,586-	2,248-	3,058-	1,576-	1,525-
Total	227,736 9,2%	70,585 2,8%	92,704 3,7%	113,867 4,6%	50,198 2,0%	814,429 32,9%	25,527 1,0%

The expenses for publicity and communication were higher than in 2014 due to 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 € 110,018 in 2015. At FRES, the expenses for fundraising mainly consist of the costs that are made for attracting new funds such as travels to donors, participation in conferences and seminars including partially the salaries of the business developers. However, this year most of the expenses were legal fees related to the court case with DGIS. The expenses for fundraising amount to 3.2% of acquired funds.

Amsterdam, 29 april 2016

Board FRES

Annemarie Goedmakers  
Serge Leijten  
Joop Lasseur

Supervisory Board FRES

Aad Veenman  
Peter Smink

Yeelen Ba	FRES GNB	FRES Uganda	Cameroon	New initiatives	Mgmt. and admin.	Total 2015	Budgeted 2014	Total 2014
€	€	€	€	€	€	€	€	€
108,648	187,195	499,697	22,641			1,920,040	4,090,000	1,447,510
						-	-	-
						-	-	-
						-	-	-
5,503	2,331	7,249	6,676	408	29,965	110,018	138,207	54,413
19,840	8,405	26,133	24,066	1,469	108,030	396,635	498,262	419,556
1,774	751	2,336	2,151	131	9,657	35,457	44,542	30,734
2,454	1,040	3,232	2,977	182	13,361	49,058	61,628	40,801
1,698-	719-	2,236-	2,059-	126-	9,245-	33,942-	(42,639)	10,727-
						-	-	-
136,521 5,5%	199,004 8,0%	536,411 21,7%	56,452 2,3%	2,064 0,1%	151,768 6,1%	2,477,264 100%	4,790,000	1,982,285



# 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 2015**

The annual accounts 2015 were adopted in a Board meeting held on 4 April 2016, and were approved by the Supervisory Board on 29 April 2016.

**Proposed appropriation of results 2015**

For the proposed appropriation of the results 2015 amounting to € 1,092,641 positive, we refer to the overview below. The Board has adopted the appropriation of the results in conformity with the proposal.

**Mutation Supervisory Board**

After approval of the annual accounts 2015, Mr. Aad Veenman resigned after six and a half years as chairman of the Supervisory Board during the meeting of 29 April 2016. Mr. Peter Smink, member, will succeed him as chairman. Mr. Marcel Kerkmeester was elected by the Board of FRES as new member of the Supervisory Board.

The proposal has been included in the annual accounts.

	Balance as on Jan 1, 2015	Appropriation of results 2015	Balance as on Dec 31, 2015
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	7,758,982	1,511,661	9,270,643
Reserve financing assets	2,411	833-	1,578
Fund Donation Nuon	1,166,387	418,187-	748,200
<b>Total</b>	<b>12,177,780</b>	<b>1,092,641</b>	<b>13,270,421</b>

# INDEPENDENT AUDITOR’S REPORT

To the Board of Foundation Rural Energy Services

**Report on the financial statements 2015**

**Our opinion**

In our opinion the accompanying financial statements give a true and fair view of the financial position of Stichting Rural Energy Services as at 31 December 2015, 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 financial statements 2015 of Stichting Rural Energy Services, Amsterdam (‘the foundation’). The financial statements include the consolidated financial statements of Stichting Rural Energy Services and its subsidiaries (together: ‘the Group’) and the company financial statements.

The financial statements comprise:

- the consolidated and foundation balance sheet as at 31 December 2015;
- the consolidated and foundation statement of income and expenditure for the year then ended;
- 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 financial statements 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 financial statements’ of our report.

We are independent of Stichting Rural Energy Services in accordance with the ‘Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten’ (ViO) and other relevant independence requirements in the Netherlands. Furthermore, we have complied with the ‘Verordening gedrags- en beroepsregels accountants’ (VGBA). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Responsibilities of the board and the supervisory board**

The board is responsible for the preparation and fair presentation of the financial statements and for the prepa-

ration of the annual report, both 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 financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, 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 financial statements 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 financial statements. The supervisory board is responsible for overseeing the foundation’s financial reporting process.

**Our responsibilities for the audit of the financial statements**

Our responsibility is to plan and perform an audit engagement 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 financial statements are free from material misstatement. Reasonable assurance is a high but not absolute level of assurance which makes it possible that we may not detect all misstatements. Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

**Announcement with respect to the annual report**

We have read the annual report in order to identify material inconsistencies, if any, with the audited financial statements. Based on reading the annual report we confirm, to the extent we can assess, that the annual report is consistent with the information in the financial statements and that the annual report contains all information required by Guideline for annual reporting 650 ‘Charity Organisations’ of the Dutch Accounting Standards Board. We have not audited or reviewed the information in the annual report.

The Hague, 29 April 2016  
PricewaterhouseCoopers Accountants N.V.

Original signed by J. van Hoof RA



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 financial statements and explained what an audit involves.

**The auditor's responsibilities for the audit of the financial statements**

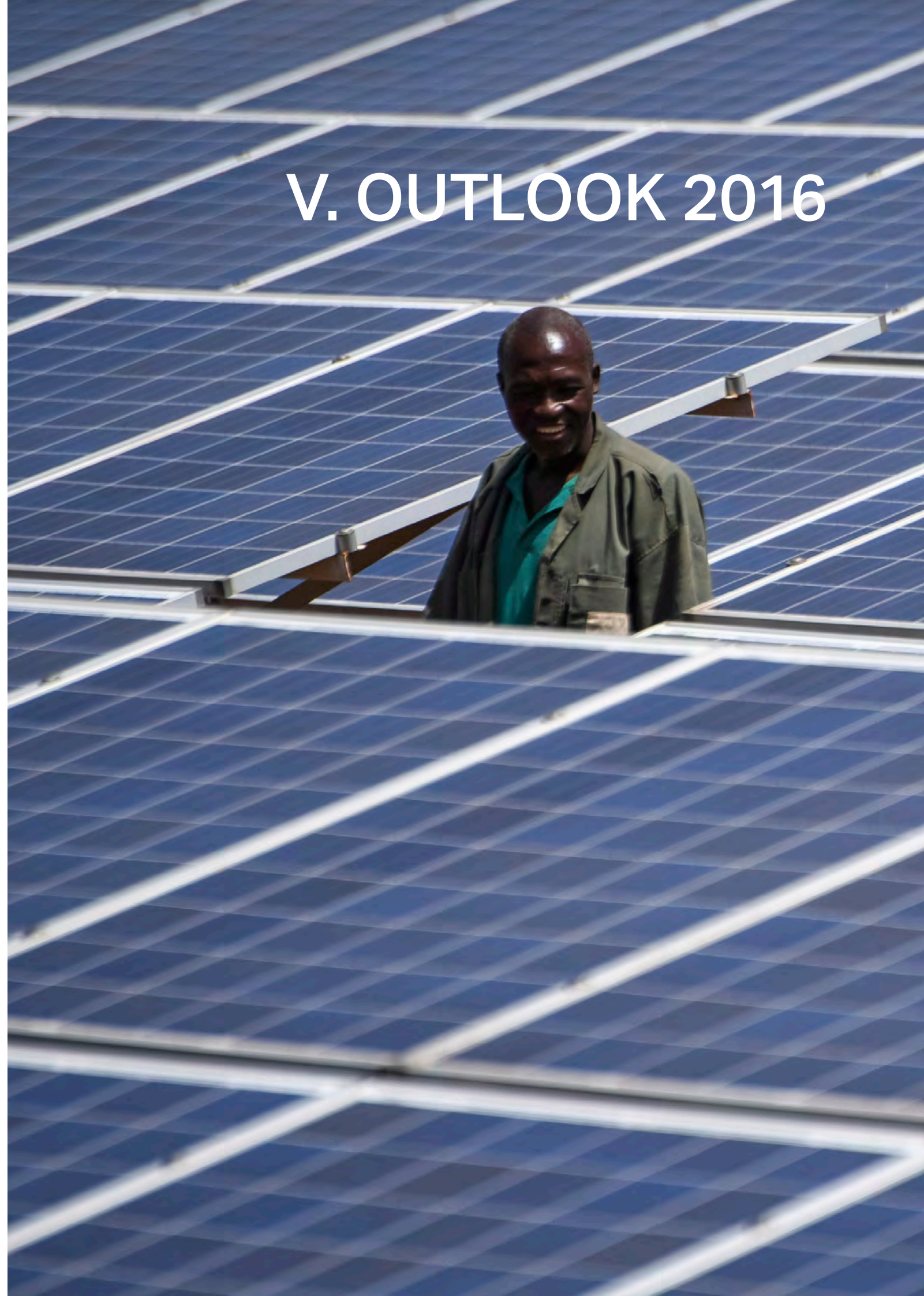
We have exercised professional judgment and have maintained professional scepticism throughout the audit in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole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

- Identifying and assessing the risks of material misstatement of the financial statements, 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 financial statements 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 financial statements 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 financial statements, including the disclosures, and evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Considering our ultimate responsibility for the opinion on the foundation's consolidated financial statements 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 financial statements 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.

# V. OUTLOOK 2016





# OUTLOOK FRES COMPANIES

FRES companies have a long-term business horizon and their goal is to become financially sustainable. Operational excellence programmes will lay a solid foundation for cost-effective and financially sustainable operations. With its five companies, FRES is targeting over 5,000 extra customers in 2016. In line with the Business Plan 2016-2020, 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 target growth solely focused on SHS customers. It will implement a pilot for a battery regeneration programme to extend the lifetime of SHS and mini-grid batteries as the demand for large scale battery replacements is imminent.

Yeelen Kura will work with the Mali government to come to a mutually acceptable compensation for assets that are to be nationalised.

## NuRa in South Africa

NuRa has to reduce operational costs, improve customer retention, improve stock management and redeployment, and improve revenue collection.

NuRa will be reorganised and restructured in order to strengthen its position and face present and future challenges. A turnaround manager will be responsible for defining and implementing the key activities to restore the performance and financial health of the company. The relation between the huge client losses and the expansion of illegal grid connections will be investigated in early 2016.

## FRES Uganda in Uganda

FRES Uganda will optimise operational processes to develop a leaner cost structure.

Improved marketing will be needed to support customer growth and improve customer retention. Internal control will be intensified to protect the company's reputation and assets.

## Yeelen Ba in Burkina Faso

In 2016, the company will improve cost effectiveness and revenue collection whilst maintaining a client basis of 3,500 as the company strives to achieve financial sustainability.

## FRES Guinée-Bissau in Guinea-Bissau

FRES Guinée-Bissau will expand its SHS customer base and establish its first solar mini-grid activities aimed at connecting 300 customers.

The company will continue to professionalise its internal organisation and remain the testing ground for remote controlled pre-paid metering systems.

## New initiatives

In 2016, depending on the successful approval of the necessary permits and licenses from the relevant authorities, and provided custom duty exemptions are granted comparable to those of other countries where we operate, FRES will start operations of its newly established FRES company (FRES Cameroon).

This will include the recruitment of a local management team; procurement of the first batch of Solar Home Systems, contracting the first customers, and providing electricity services.

# 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 will be implemented in 2016. The recommendations are expected to lead to improved effectiveness and efficiency of the organisation.

## 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.

## Risk management

HSE and fraud risks in FRESco's will continuously demand our attention.

A risk to FRES are the sometimes very long periods during which we have to pre-finance large sums. This is the result of the high upfront costs for investing in solar expansion. We have turned the risk into an advantage, while also contracting donor money, by creating a reserve fund for supporting the growth of young FRES companies and providing the necessary pre-financing for donor/government investments.

## Fundraising

FRES will continue to build relationships with governments and international development agencies as well as private sector companies in order to attract a constant flow of additional financing. Our growth targets are decided by the contracted sums.

## Communication

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



# OBJECTIVES 2016

## 1. Operational performance

The performance of FRES companies will be assessed on:

- payment rate;
- operating and replacement costs;
- customer growth including customer retention;
- and 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.

## 2. Cost efficiency at FRES Netherlands

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

## 3. Strengthening strategic partnerships

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

## 4. 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 and help realise 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 FRES companies as well. The project has the potential to significantly reduce the financial burden of the investments needed to replace batteries for FRES companies.

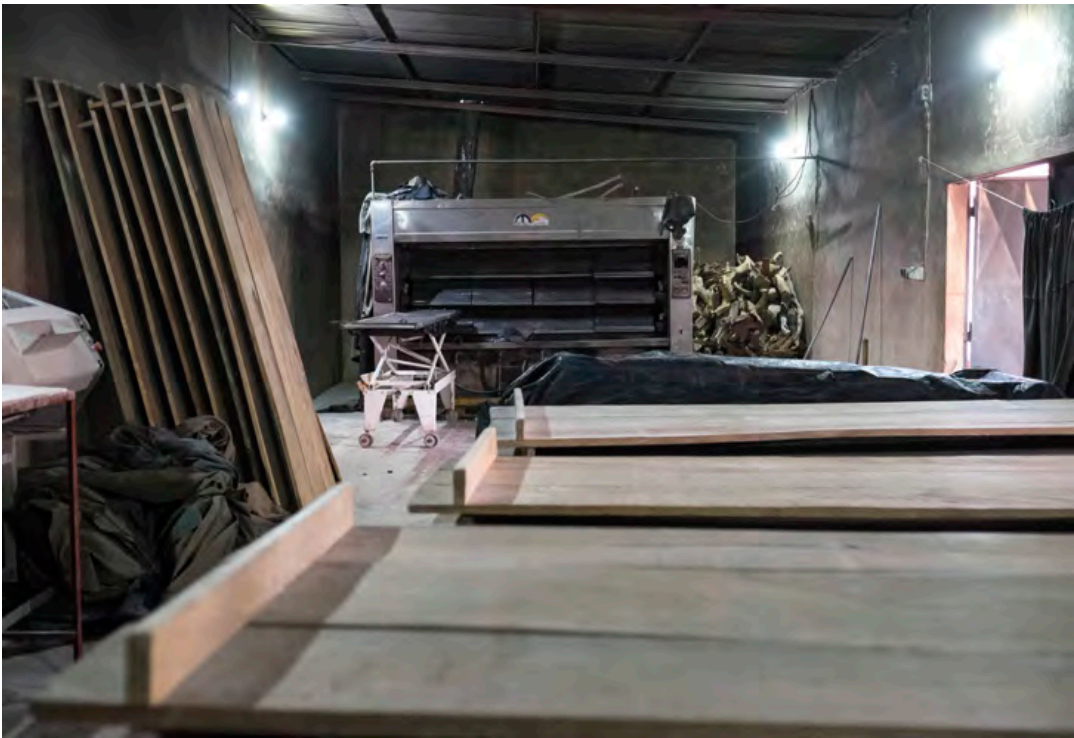
## 5. FRES-wide HSE policy

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.

## 6. 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.



# OPERATING ACCOUNT 2016

## CONSOLIDATED INCOME

	Budget 2016	Budget 2015	Actuals 2015
<b>Income from own fund fundraising</b>	<b>183,000</b>	<b>178,000</b>	<b>217,002</b>
Income from fundraising -Companies	180,000	175,000	206,937
Income from fundraising -Private persons	3,000	3,000	10,065
<b>Subsidies group companies (committed)</b>	<b>2,859,000</b>	<b>1,940,000</b>	<b>3,313,067</b>
Yeelen Kura,Mali (EU Regional)	600,000	300,000	352,555
Yeelen Kura, Mali (EU Fragile States)	-	250,000	1,316,689
FRES Uganda , Uganda ((EU regional)	700,000	640,000	269,601
FRES Uganda, Uganda (EEP)	300,000	-	150,000
FRES Uganda, Uganda (Wordbank/REA)	50,000	250,000	-
Yeelen Ba, Burkina Faso (EU/Nuon)	209,000	-	157,354
FRES Guinée-Bissau, Guinea Bissau (EU GB and EU reg)	700,000	500,000	807,636
FRES Guinée-Bissau, Guinea Bissau (OFID)	100,000	-	-
FRES Cameroon, Cameroon (EU Regional)	200,000	-	259,232
<b>Subsidies group companies (non committed)</b>	<b>100,000</b>	<b>300,000</b>	<b>-</b>
FRES Guinée-Bissau, Guinea-Bissau (UNIDO and ECREEE)	100,000	300,000	-
<b>Income from group companies operating activities</b>	<b>2,500,000</b>	<b>2,000,000</b>	<b>2,331,869</b>
Yeelen Kura, Mali	1,500,000	1,050,000	1,420,071
FRES Uganda, Uganda	500,000	650,000	450,869
FRES Guinée-Bissau, Guinea Bissau	500,000	300,000	460,929
<b>Return on investments in funds</b>	<b>277,000</b>	<b>247,000</b>	<b>193,956</b>
Financial costs	2,000	2,000	(125,490)
Financial income	125,000	125,000	97,536
(Un)realised gains/losses shares and bonds	150,000	120,000	221,910
<b>Transfer from own reserves and funds</b>	<b>516,000</b>	<b>160,000</b>	<b>(103,075)</b>
Transfer from / to own reserves	516,000	160,000	(103,075)
<b>Total consolidated income</b>	<b>6,435,000</b>	<b>4,825,000</b>	<b>5,952,819</b>
<b>NON CONSOLIDATED INCOME</b>			
<b>Subsidies group companies (committed)</b>	<b>800,000</b>	<b>-</b>	<b>-</b>
NuRa, South Africa (DOE)	800,000	-	-
<b>Subsidies group companies (non committed)</b>	<b>-</b>	<b>1,085,000</b>	<b>262,439</b>
NuRa, South Africa (DOE)	-	1,085,000	262,439
<b>Income from group companies operating activities</b>	<b>1,460,000</b>	<b>2,050,000</b>	<b>1,648,696</b>
NuRa, South Africa	1,200,000	1,800,000	1,437,302
Yeelen Ba, Burkina Faso	260,000	250,000	211,394
<b>Net cashflow from subsidiaries consolidated and non-consolidated</b>	<b>-</b>	<b>80,000</b>	<b>(160,517)</b>
	-	80,000	(160,517)
<b>Total non consolidated income</b>	<b>2,260,000</b>	<b>3,215,000</b>	<b>1,750,618</b>
<b>SUM OF THE INCOME</b>	<b>8,695,000</b>	<b>8,040,000</b>	<b>7,703,437</b>

NOTES ON INCOME 2016

Consolidated income

Income from own fund fundraising

This consists of donation from Alliander for Office Expenses and the payroll costs for the deployment of the Director Business Development.

Subsidies group companies (committed)

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

FRES Uganda, Uganda (EU and EEP): FRES will receive an advance payment of EUR 300,000 for expansion new clients from EEP as co-financing for EU budget.

There will be an advance payment for FRES Uganda from EU budget as systems for 2017 will be bought in 2016 with EU budget.

FRES Uganda, Uganda (Worldbank/REA): The subsidy programme under ERTII with the government of Uganda/ World Bank is exhausted. We still expect to receive a late payment of EUR 50,000 regarding a delayed unpaid subsidy amount from 2013 from the ERTII program. No new subsidy is expected in 2016 from the government of Uganda.

Yeelen Ba, Burkina Faso (EU/Nuon): FRES received in January 2016 the final payment of EUR 209,000 from EU.

FRES Guiné-Bissau, Guinea-Bissau (EU/EU regional): An advance payment of 700.000 is scheduled to be received in 2016 from EU regional budget.

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

Subsidies (non-committed)

FRES Guiné-Bissau, Guinea-Bissau (EU): FRES expects to obtain the delayed approval of a subsidy in 2016 from ECREEE/UNIDO for the implementation of the solar mini-grid in Contibuel.

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:

Increases in income are expected because of strong increased numbers of customers.

The income level of FRES Uganda takes into account the actual experience with regard to payment rate in 2015 and customer churns.

Transfer from own reserves and funds

It is expected that a withdrawal is needed in 2016 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 of Yeelen Ba and Nura and the monthly financial report of NuRa and Yeelen Ba.

Subsidies group companies non consolidated (committed)

NuRa, South-Africa (DoE): NuRa will receive some delayed payments from DoE in 2016 for the last tranche of 2000 systems.

Subsidies group companies non consolidated (non-committed)

NuRa, South-Africa (DoE): In 2016 Nura does not expect a new subsidy contract with the South African government.

Income from group companies operating activities non consolidated

The income of NuRa is expected to reduce somewhat in 2016 as a result of lower customer numbers due to disconnections related to non-payment and grid encroachment. The income of Yeelen Ba is expected to increase slightly as a result of the strong focus of Yeelen Ba on fee collection in 2016 and strict policy of disconnection of clients.

Net-cashflow from subsidiaries

Net-cash flow from subsidiaries relates to the positive financial results of the subsidiaries Operational income minus operational and replacement costs.

OPERATING ACCOUNT 2016

EXPENSES

Expenses for group companies’ operational activities (excl depreciations and provisions)

Yeelen Kura, Mali  
FRES Uganda, Uganda  
FRES Guiné-Bissau, Guinea Bissau  
NuRa, South-Africa (costs in NL)  
Yeelen Ba, Burkina Faso (costs in NL)

Expenses for replacements of group companies

Yeelen Kura, Mali  
FRES Uganda, Uganda  
FRES Guine-Bissau, Guinea Bissau

Expenses for expansion of group companies

Yeelen Kura, Mali  
FRES Uganda, Uganda  
FRES Guiné-Bissau, Guinea Bissau  
FRES Cameroon, Cameroon  
NuRa, South-Africa (costs in NL)  
Yeelen Ba, Burkina Faso (costs in NL)

Expenses for new initiatives

FRES Service costs- spent on objectives

Direct support existing companies  
Direct support expansion of companies  
Direct support new initiatives

FRES Service costs - management and administration

Direct costs  
Indirect costs

Total consolidated expenses

Expenses for group companies’ operational activities (excl depreciations and provisions)

NuRa, South-Africa  
Yeelen Ba, Burkina Faso

Expenses for replacements of group companies

NuRa, South-Africa  
Yeelen Ba, Burkina Faso

Expenses for expansion of group companies

NuRa, South-Africa  
Yeelen Ba, Burkina Faso

Total non consolidated expenses

SUM OF THE EXPENSES

Budget 2016

Budget 2015

Actuals 2015

2,470,000	1,530,000	2,410,652
700,000	780,000	714,525
1,200,000	400,000	1,228,985
450,000	350,000	403,281
60,000	-	13,612
60,000	-	50,249
230,000	290,000	90,874
100,000	130,000	36,831
100,000	150,000	54,043
30,000	10,000	12,447
3,350,000	2,225,000	2,021,894
1,100,000	775,000	1,527,442
850,000	850,000	193,750
1,000,000	600,000	191,561
300,000	-	-
	-	493
100,000	-	108,648
45,000	45,000	23,134
500,000	563,000	405,456
290,000	328,000	242,280
207,000	225,000	127,302
3,000	10,000	35,874
150,000	137,000	151,779
40,000	6,000	9,667
110,000	131,000	142,112
6,745,000	4,790,000	5,103,789
1,250,000	1,650,000	1,404,851
1,000,000	1,400,000	1,168,162
250,000	250,000	236,689
450,000	500,000	391,851
300,000	450,000	338,700
150,000	50,000	53,151
250,000	1,100,000	802,946
250,000	1,100,000	802,946
-	-	-
1,950,000	3,250,000	2,599,648
8,695,000	8,040,000	7,703,437



Consolidated expenses

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

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

Yeelen Kura, Mali: Budget 2016 will remain at same level as in regards of actuals 2015 despite the strong growth of clients.

FRES Uganda, Uganda:The budget 2016 includes direct write-offs of installation costs for new customers, same as the actuals 2015.

FRES Guiné-Bissau, Guinea-Bissau: Budget 2016 will slightly increase compared with actuals 2015 due to restructuring and strengthening of the internal organisation.

Expenses for replacement of group companies

Yeelen Kura, Mali: Concerns the expenses for replacement of SHS parts and maintenance of the mini-grid networks and removal of systems from cancelled clients.

FRES Uganda, Uganda: Concerns 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 from cancelled clients.

Expenses for expansion of group companies

These expenditures concern capital investments for connection of new clients. It is forecast that less investmnets will take place in 2015 due to the delayed second tender procedure for new SHS in 2015. It is expected that only the first payment of the second contract for procurement of SHS will be executed at the end of 2015.

Yeelen Kura, Mali: An investment of EUR 1.100.000 is planned for expansion with new SHS clients for 2016 and 2017 and possibly 300 mini-grid clients (EU funding and co-financing FRES).

FRES Uganda, Uganda: An investment of EUR 850.000 is planned in 2016 with EU subsidy for connecting new clients in 2016 and 2017.

FRES Guiné-Bissau, Guinea-Bissau: An investment of EUR 1.000.000 is planned for expansion with 1000 new SHS clients for 2017 and a mini-grid in Contibuel in 2016 financed with EU and OFID subsidy.

FRES Cameroon, Cameroon: An investment of EUR 300.000 is planned for the start-up phase pending the approval of authorisation and exemption of custom taxes. A batch of 500 systems is planned to be purchased in the third quarter of 2016 to be installed in 2017.

Yeelen Ba, Burkina Faso: FRES NL has financed a batch of SHS components and lamps for reaching a customer base of 3500 clients.

FRES service costs

FRES budgetted service costs in 2016 will be higher than actual service costs in 2015 due to additional costs such as purchase of project management software program and staff restructuring of the FRES organisation in the Netherlands.

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 and Yeelen Ba.

Expenses for group companies’ operational activities non consolidated

Yeelen Ba, Burkina Faso:Expenses are expected to remain at same level than in 2015.

NuRa, South-Africa: Expenses will be slightly reduced in 2016 due to the reorganisation of NuRa that will take place.

Expenses for replacements of group companies non consolidated

NuRa, South-Africa: The budget 2016 for expenses for replacement will remain at same level in regards to budget 2015.

Yeelen Ba, Burkina Faso: The expenses for replacement of SHS parts and the removal of systems from cancelled clients will increase in 2016 due to the fact that a batch of batteries of 2011 need to be replaced potentially in 2016 (5 years lifetime).

Expenses for expansion of group companies non consolidated

NuRa, South-Africa: NuRa plans to roll out in 2016 the remaining SHS from the batch of 2000 SHS from 2015.

Yeelen Ba, Burkina Faso: No invesments will take place in 2016 as there is no new subsidy for expansion with new customers.

APPENDICES





# 1. TERMINOLOGY

<b>AC</b> 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).	<b>Payment Rate</b> Payments received as percentage over payments due in a certain period.
<b>ANBI</b> 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.	<b>Public Private Partnership (PPP)</b> A cooperation agreement between the government and the corporate sector.
<b>BoD</b> Board of Directors that supervises a FRES company.	<b>Rural electrification</b> Providing rural areas with access to electricity.
<b>Concession area</b> The area for which a FRES company has permission to provide its services from the relevant authorities.	<b>SHS</b> Solar Home System.
<b>Fee-for-service</b> 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.	<b>SHS customer equivalent</b> 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.
<b>Financial sustainability</b> 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).	<b>Stakeholder</b> A person or organisation that is influenced by or has impact on FRES.
<b>FRESco</b> FRES company in Africa.	<b>UNFCCC</b> United Nations Framework Convention on Climate Change
<b>HSE</b> Health, Security and Environment.	<b>Watt peak (Wp)</b> The output capacity of a solar panel, tested under STC (Standard Test Conditions).
<b>Mini-grid</b> A small electricity network (several km) not connected to a national grid, to which customers in the vicinity can be connected.	<b>Wh</b> The electrical capacity in W that is used during one hour (1 kWh = 1000 Wh, and 1 MWh is 1000 kWh).
<b>Non-payment Rate</b> The percentage of customers with payment arrears of (at least) 30 days.	For Appendices 2 to 6: see <a href="http://www.fres.nl">www.fres.nl</a>

# 2. 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, most 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 such as Mali, which are dependent 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.



# 3. PROCEDURE FOR STARTING UP NEW COMPANIES

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

- Market-potential research;
- Upon requests from governments or NGOs;
- Applying for 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, financiers and relevant regulators.

# 4. ORGANISATION IN DETAIL

FRES, Foundation Rural Energy Services, is a foundation according to Dutch legislation. The Dutch tax authorities have granted FRES the ANBI status (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 a compensation for the actual expenses made.

## 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 Member 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	2013/2017	no
Peter Smink (on behalf of Nuon)	Secretary	CEO/CFO NV Nuon Energy Member Supervisory Board Yellow and Blue Board member Swedish Chamber of Commerce in NL	2014/2018	no

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

Responsibilities

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

(Re-)appointment procedure

The Supervisory Board consults with the President of the Board about the profile outline and an intended appointment of a member of the Supervisory Board. The Supervisory Board appoints a candidate as a member, on the recommendation of the Board, unless the recommended candidate is unsuitable or the appointment would not lead to a proper composition of the Supervisory

Board. Main sponsors have the right to recommend a candidate for the Supervisory Board. Members are appointed for a period of four years and can only be reappointed once after this period.

STAFF FRES NETHERLANDS

FRES strives to keep the operational expenses in the Netherlands as low as possible by working with a small core of permanent (paid) employees and a large, flexible team of (pro bono) 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 pro bono volunteers and experts have different backgrounds and fields. They practically always work for us on a temporary basis and based on 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.

FRES Netherlands (paid staff)

Caroline Nijland – Director Business Development (since 2007)  
Frederique Schlicher-Wijtenburg – Business Liaison Officer (since 2012)  
Myra Rijssel – Office Manager (since February 2015)  
Chris Service – Business Developer (since July 2012)  
Everard Geurtsen – Director Operations (since May 2013)  
Nuria Cunha Soares – Business Liaison Officer (since August 2013)  
Sabah el Miloudi – Coordinator EU Projects (since 2011)  
Peter de Wit – Operations Manager (November 2012 – 01 May 2015)

	2012	2013	2014	2015
Number of employees	5	6	6	6
Male / Female ratio	2/3	2/4	2/4	2/4
Definite / Indefinite contract	5/0	5/1	5/1	5/1
Fulltime / Part-time	1/4	1/5	1/5	1/5
Number of FTEs	3.8	4.6	4.8	4.75
Average sick leave	1.0 %	0 %	1.5 %	1 %
Average age	44	42	43	43
Influx / Outflow	3/3	2/1	0/0	1/1
Number of freelancers	1	2	2	2
Influx/outflow freelancers	1/0	1/0	0/0	0/1

General Managers FRES companies

Yeelen Kura, Mali: Djibril Séméga  
NuRa, South Africa: Sifiso Dlamini (until October 2015) a.i. Tumelo Modiselle (from November 2015)  
Yeelen Ba, Burkina Faso: Bourahima Yameogo  
FRES Uganda: Allan Asingwire (until September 2015), Joselyne Musiime (from October 2015)  
FRES Guiné-Bissau: Reinder Bouwmeester

FRES NL Advisors and experts

Tom van Woerkom – Network Losses Yeelen Kura, Mali (since 2010)  
Willem Post – Human Resources Advisor, Netherlands (since July 2012)  
Huub Beckers – Coaching Djibril Séméga, general manager of Yeelen Kura, Mali (since 2014)  
Erik Deen (PUM) – Coaching Allan Asingwire, general manager of FRES Uganda, Uganda (since 2014)  
Charles Kouassi – Study pre-paid metering systems for SHS (since 2015)  
Guus Evers – TU Delft study non technical and technical optimisation lifecycle (and costs) of batteries (since 2015)  
Özal Yilmaz – TU Delft study non technical and technical optimisation lifecycle (and costs) of batteries (since 2015)  
Oliver Nijhout – TU Delft study non technical and technical optimisation lifecycle (and costs) of batteries (since 2015)  
Harry Spaas – HSE Uganda and Yeelen Kura (2015)  
Rob van der Sanden – ICT development (2015)



# 5. 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](http://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.

# 6. 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/](http://www.fres.nl/annual-report/)

# COLOPHON

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