



foundation **RURAL ENERGY SERVICES**

FRES Business Plan 2021

Version 5 February

Summary FRES Business Plan 2021

Invest

1. Finalize 4 **minigrids**, extend one minigrid in Mali
2. Utilize our **SHS stocks** with battery replacement; install 95% of all complete systems
3. Implement **PAYG** in all countries to improve customer service and payments
4. Expand to two new regions in **Burkina Faso**
5. Move into **productive use**:
(1) 15 nanogrids (2) 2 Multifunctional platforms (3) Excess capacity of Contuboe

Consolidate

1. Review **business model**:
(1) market positioning; (2) revenue models of installations; (3) budget templates
2. Improve **management information** (PAYG, ERP, Monthly Reports)
3. Improve **SHS profitability**:
(1) capacity planning and service performance; (2) utilization of SHS stocks
4. Improve **replacement forecasting**
5. Review **future of technology**, including recycling

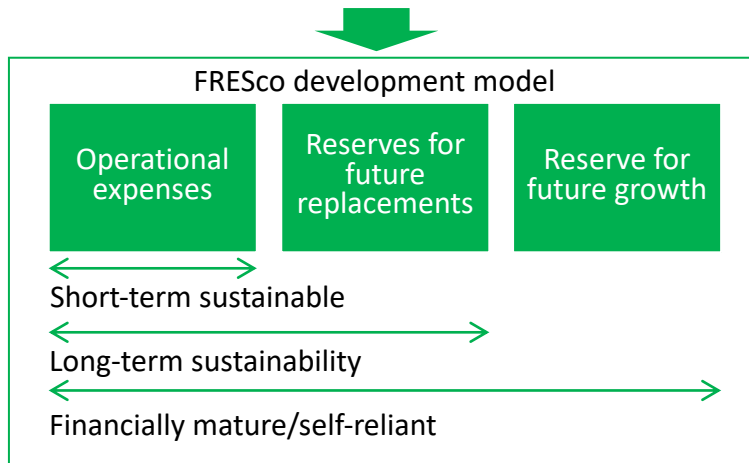
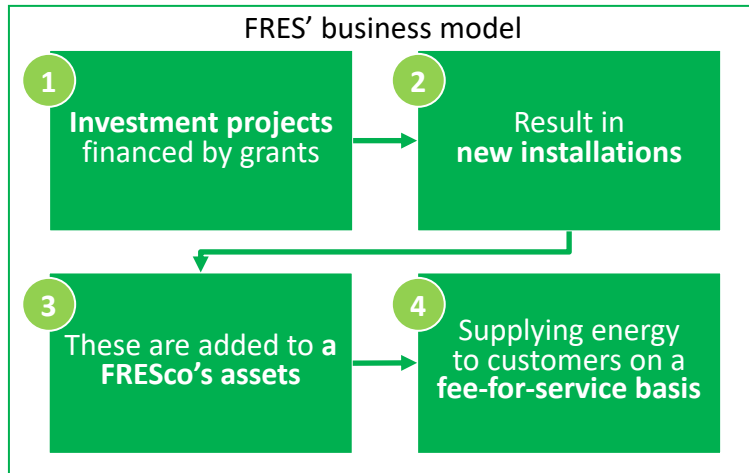
Grow

1. Review **licence to operate** in each country
2. Strengthen our **fundraising practice**
3. Explore expansion in a **new country**
4. Raise funds for **SHS expansion**
5. Raise funds for **specific country priorities**

Overview business plan development process

- The business plan development process was kicked off with a presentation of our ambitions for the decade towards 2030 to the FRES non-executive board (28 august 2020)
- In a process from September to December FRESnl and FREScos discussed the (1) strategic starting points (2) operational starting points (3) business plan targets and priorities
- First outcomes of this process have been shared with the FRES non-executive board on 6 November 2020
- This resulted in a series of activities run by FRESnl that are relevant for all FREScos
 - To strengthen our future growth base
 - To strengthen the operational model
 - To review business plans against the short term sustainability target
- Based on the FRESCO business plan a dashboard for each of the FREScos has been developed, to be reviewed and approved by the FRESCO boards in January 2021
- The final business will presented to the FRES non-executive board on 9 February 2021

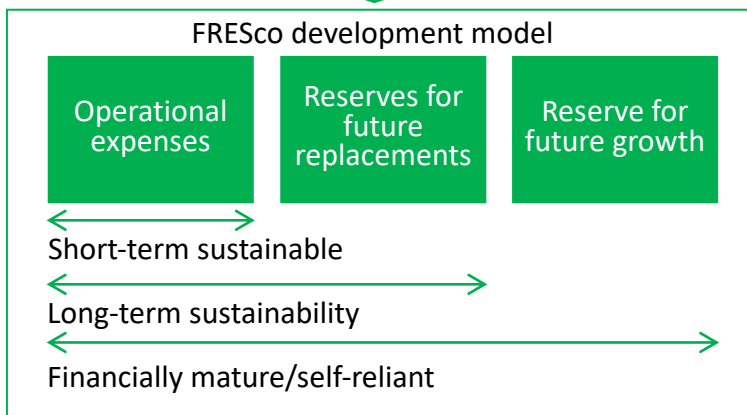
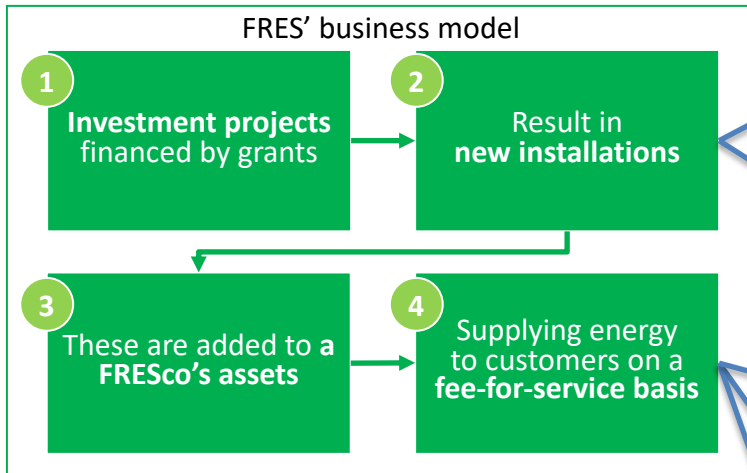
The FRES business model is the basis of the 2021 business plan



This outline of the FRES business model was presented to the FRES non-executive board on 28 August 2020. It functioned as starting point for the business plan development.

- FRES accelerates rural electrification by (1) managing investment projects that result in (2) new installations
- These installations (such as solar home systems and mini grids) are then (3) added to the assets of the local FRESco
- The FRESco uses the assets to supply reliable and affordable energy to customers on (4) fee-for-service basis
- FRES guides the FRESco's on a roadmap to becoming long-term sustainable and financially mature or self-reliant
- The first step in a FRESco's development is to become sustainable in the short term: revenues cover operational expenses (incl. reinstallation)
- The second step is for the FRESco to become sustainable in the long term, generating sufficient revenue also to reserve for future replacements (based on forecasting)
- A FRESco is considered mature or self-reliant when it is also able to reserve for future growth and contribute to expansion, for instance by pre-financing or matching

Building blocks of the business plan



- 1 • **Investments run as projects**
Investment projects, battery replacement plan – slide 5, 6
- 2 • **Five activities to strengthen our future growth base**
Overview of activities – slide 7
- 3 • **Five activities to strengthen the operational model**
Overview of activities – slide 9
- 4 • **Five projects to strengthen operational reporting**
Overview of activities – slide 9
- 5 • **FRESco Dashboards with targets**
Dashboards – slide 11-14
- 6 • **Planning & Control Cycle**
Planning & Control Cycle, Budgets – slide 11-14

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Investment projects 2021

Donor funded

Country	Project	Funder	Delivery	Status
Mali	2 minigrids (Beleko, Fakola)	EU Fragile	2020	Running project, commissioning delayed
	2 minigrids (Diena, Dogoni)	EU Regional	2020	Running project, commissioning delayed
	5 nanogrids	EU Regional	31 July 21	Addendum approved
	1 minigrid extension	EU Regional	31 July 21	Addendum approved
	2500 SHS PAYGO upgrades	EU Regional	31 July 21	Addendum approved
	1 solar water pumping	Vivace	Q1 21	Running contract, delayed
Uganda	550 SHS	EU Regional	31 July 21	Running project, postponed
	3700 SHS PAYGO upgrades	EU Regional	31 July 21	Addendum approved
Guinea-Bissau	5 nanogrids	EU Regional	31 July 21	Addendum approved
Burkina Faso	5 nanogrids	EU Regional	31 July 21	Addendum approved
	474 SHS	EU Regional	31 July 21	Addendum approved
	1 MFP	UNCDP	End of 2022	Contract ready for signing
	1 MFP	PREO	End of 2022	Contract expected January 2021
	Startup investments	EU Regional	31 July 21	Addendum approved

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Investment projects 2021

FRES Battery replacement plan

Country	Batch	Type	#	Costs €	ETA	Financing	Status
Mali	#1	RITAR-100	264	31654,39	Dec 20	YK reserve	
	#1	RITAR-140	208	35582,31	Dec 20	YK reserve	
	#2	RITAR-100	264	31654,39	Mar 21	YK reserve	
	#2	RITAR-140	208	35582,31	Mar 21	YK reserve	
Uganda	#1	RITAR-100				Loan schedule	Foreseen Q3/Q4 2021
	#1	RITAR-140				Loan schedule	Foreseen Q3/Q4 2021
Guinea-Bissau	#1	RITAR-100	336	40616,69	Dec 20	Loan schedule	
	#1	RITAR-140	160	27527,81	Dec 20	Loan schedule	
	#2	RITAR-100				Loan schedule	Foreseen Q3/Q4 2021
	#2	RITAR-140				Load schedule	Foreseen Q3/Q4 2021
Burkina Faso	#1	RITAR-100	264	31913,11	Dec 20	Loan schedule	To be fully used for replacement
	#1	RITAR-140	112	19269,47	Dec 20	Loan schedule	To be fully used for replacement
	#1	RITAR-100	144	17407,15	Dec 20	EU regional	To complete systems, to meet EU regional targets
	#2	RITAR-100	270		Mar 21	EU regional	Included in SHS tender
	#2	RITAR-140	70		Mar 21	EU regional	Included in SHS tender

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Projects to strengthen future growth base

1. Review and renew licence to operate

Review and where necessary renew authorizations and consessions; renew and strengthen relations with authorities

2. Identify partners

Identify preferred partners for each country to collaborate in fundraising and implementation on areas (1) agriculture (2) education (3) healthcare (4) refugees (5) economic development

3. Improve visibility and reputation

Strengthen reputation and visibility through (1) website (2) branding of vehicles, buildings, garments

4. Strengthen fundraising practice

Strengthen fundraising practice (1) monitoring tenders (2) active approach donors (3) collaboration FRESnl – FREScos (4) project teasers

5. Identify new countries

Starting with developing scenarios for setting up FREScos in new countries and a business plan for Zambia we aim for identifying one new country to expand by the end of 2021

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Projects to strengthen operational model

1. Review market positioning

With our utility and fee-for-service model as starting point, we will review our position, proposition and service promise in each market in relation to increased competition, including adopting new technologies such as lithium

2. Improve profitability SHS business

Empowered by the PAYGO platform we will review the whole SHS business and implement improvements (1) installation rate (2) client selection (3) customer service (4) repossession and reinstallation rate (5) payment rate (6) capacity planning (7) quality control

3. Review business models

We will also review the business models of our other installations, with objective to optimize utilization and revenues: (1) minigrids; (3) nanogrids; (4) MFPs; (5) solar water pumping. This activity (as the SHS activity above) will result in new KPI's for monthly reporting

4. Improve replacement forecasting

To maintain and extend the lifespan of our systems, we will develop an approach to monitor the quality of our installations to forecast renewal and reserve for future replacements

5. Approach to recycling

We will develop and implement an approach to recycle exhausted batteries and other components

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Projects strengthening operational reporting

1. Smarten up monthly operational reports

The reports provide a monthly overview to FRESco and FRES board. Priority in 2021 is to improve the quality and timely delivery of the reports

2. Run Planning & Control Cycle

Operational reporting, mid-term review and performance evaluation follow a pre-set annual planning and control cycle.

3. Implement ERP system

Implement a FRES-wide ERP system to improve oversight, reduce manual transfer of data and facilitate consolidation

4. Set up project administration, contract management and monitoring

Donors make ever higher demands regarding contract management, project administration, progress reporting and monitoring, evaluation and learning. Can we do this smart and light?

5. Evaluate and revisit FRESco business plans

Evaluation of the current plans with focus on (1) revenues (2) cost drivers (3) reserves for replacement will result in revisiting and adjustments the plans during a mid-year review

FRES Mali – Yeelen Kura

Business plan priorities and targets

2021 Qualitative business targets		
<ol style="list-style-type: none"> 1. Renew authorizations 2. Improve capacity planning (SHS/agent) and customer service 3. Implement PAYGO 4. Implement mobile payment for minigrids 5. Fill critical marketing and sales vacancies 6. Finalize commissioning 4 minigrids 7. 5 Nanogrids, 1minigrid extension 8. Plan minigrid utilization and replacement forecasting 9. Develop new service offerings (solar water pumping, nanogrids) 10. Celebrate 20 years Yeelen Kura 		
Number of assets		
	Number of systems	Max number of connections
SHS	5234	5234
Minigrid	14	4955
Nanogrid	5	40 (tbd)
Multifunctional platform	0	0
Solar Water Pumping	2	N/A
Village lighting	14	N/A

2021 Quantitative business targets			
	2020 target	2020 LE	2021
Customers	9363	7744	9904
SHS		3867	4868
Minigrid		4047	4994
Nanogrid		0	40
Multifunctional platform		0	0
Solar Water Pumping	2	1	2
Village lighting	14	14	14
SHS installation rate*	-	65% (Oct 20)	93%*
SHS payment rate	96%	90%	95%
SHS suspension		5%	5%
Operational Revenues	730 MCFA 1113 k€	626 MCFA 954 k€	774 MCFA 1180 k€
Operational costs	288 MCFA 439 k€	262 MCFA 400 k€	296 MCFA 451 k€
Replacement costs	101 MCFA 154 k€	36 MCFA € 55 k€	169 MCFA 257 k€
Short term sustainability**		162%	129%
Long term sustainability**		46%	55%

FRES Burkina Faso – Yeelen Ba

Business plan priorities and targets

2021 Qualitative business targets

1. Set up two new energy stores
2. Implement PAYGO
3. Renew authorizations
4. Short term sustainable by end of 2021
5. Finalize investment projects in time and budget
6. Fill critical vacancies (technical manager)

Number of assets

	Number of systems	Max number of connections
SHS	3108	3108
Minigrid/microgrid	(2 in 2022) 0	0
Nanogrid	5	40 (tbd)
Multifunctional platform	(2 in 2022) 0	0
Solar Water Pumping	0	0
Village lighting	0	N/A

2021 Quantitative business targets

	2020 target	2020 LE	2021
Customers	3036	2473	2853
SHS	3036	2473	2853
Minigrid/microgrid		0	0
Nanogrid		0	40
Multifunctional platform		0	0
Solar Water Pumping		0	0
Village lighting		0	0
SHS installation rate*	-	95% (Oct 20)	95%
SHS payment rate	95%	88%	95%
SHS suspension rate		11%	5%
Operational Revenues	158 MCFA 241 k€	135 MCFA 205 k€	139 MCFA 212 k€
Operational costs	132 MCFA 201 k€	137 MCFA 209 k€	168 MCFA 256 k€
Replacement costs	0 MCFA 0 k€	0 MCFA 0 k€	183 MCFA 279 k€
Short term sustainability**		99%	40%
Long term sustainability**		59%	22%

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FRES Guinea-Bissau

Business plan priorities and targets

2021 Qualitative business targets
1. Complete actions as agreed Q2 2020 (list Everard)
2. Improve operational control
3. Review market positioning
4. Implement PAYGO
5. Realize 5 nanogrids
6. 75% long-term sustainable by end of 2021 (start reserving for future replacements)
7. Plan for excess capacity minigrid Contuboel
8. Celebrate 10 years of FRES Guinea-Bissau

Number of assets		
	Number of systems	Max number of customers
SHS	4744 (?)	4744 (?)
Minigrid	1	445
Nanogrid	5	40 (tbd)
Multifunctional platform	0	0
Solar Water Pumping	0	0
Village lighting	1	1

2021 Quantitative business targets			
	2020 target	2020 LE	2021
Customers	5322	4379	4424
SHS	4867	3933	3983
Minigrid	455	446	446
Nanogrid		0	40
Multifunctional platform		0	0
Solar Water Pumping		0	0
Village lighting		1	1
SHS installation rate*	-	58% (Oct '20)	96%
SHS payment rate	86%	60%	85%
SHS suspension rate		7%	5%
Operational Revenues	315 MCFA 481k€	216 MCFA 329 k€	294 MCFA 448k€
Operational costs	220 MCFA 335k€	157 MCFA 240 k€	208 MCFA 317 k€
Replacement costs	67 MCFA 102 k€	27 MCFA 4 k€	80 MCFA 121 k€
Short term sustainability**		147%	102%
Long term sustainability**		75%	69%



Note: many uncertainties and inconsistencies on numbers of SHS systems and clients

* Installation rate (customers/max number of connections)

** To be reviewed mid-2021

2021 Qualitative business targets

1. Stabilize SHS business
 - Reduce churn to 12% (was 27%)
 - Reduce suspension to 5%
 - Mobile money to 70%
2. Implement PAYGO
3. Review market positioning
4. Explore expansion to northern region
5. Build partnerships (refugees, farmers)
6. 80% long-term sustainability by end of 2021 (start reserving for future replacements)

Number of assets

	Number of systems	Max number of connections
SHS	6438	6438
Minigrid	0	0
Nanogrid	0	0
Multifunctional platform	0	0
Solar Water Pumping	0	0
Village lighting	0	0

2021 Quantitative business targets

	2020 target	2020 LE	2021
Customers	6475	5750	6250
SHS	6475	5750	6250
Minigrid		0	0
Nanogrid		0	0
Multifunctional platform		0	0
Solar Water Pumping		0	0
Village lighting		0	0
SHS installation rate*	-	89% (Oct 20)	97%
SHS payment rate	85%	78%	90%
SHS suspension rate		7%	5%
Operational Revenues	2701 MUGX 608 k€	2188 MUGX 498 k€	2287 MUGX 511 k€
Operational costs	2145 MUGX 487 k€	2036 MUGX 462 k€	2129 MUGX 476 k€
Replacement costs	471 MUGX 106 k€	373 MUGX 83 k€	474 MUGX 107 k€
Short term sustainability**		108%	91%
Long term sustainability**		75%	73%

* Installation rate (customers/max number of connections)

** To be reviewed mid-2021

Planning & Control Cycle

	Jan	Feb	Mrt	Apr	Mei	Jun	Jul	Aug	Sep	Okt	Nov	Dec	Jan	Feb	Mrt	Apr	Mei	Jun	Jul	Aug	Sep	Okt	Nov	Dec
Governance Cycle																								
FRESco board	Second week of the month																							
FRES board	Third week of the month																							
Non-executive board		9			7				3		5													
Quarterly Report (progress business targets)																								
Annual Report approval																								
Business Plan approval																								
Annual Report Process																								
Outline Annual Plan process to FRESco																								
Send Questionnaire to FRESco																								
FRES auditor instructions to FRESco auditors																								
intercompany transactions, FRESnl bookyear																								
FRESco send Annual Accounts																								
Check Annual Accounts with FRESco and local auditors																								
Texts annual report																								
Create consolidated accounts																								
Texts annual accounts																								
Audit consolidated accounts																								
Design																								
Approval annual report																								
Local auditors perform mid-year review																								
Business Plan Process																								
Business plan approval FRESco board																								
BP review based on 2020 figures / sustainability check																								
Investment proposals for 2021																								
Replacement forecasting																								
Midyear Review																								
Send business plan template to FRESco																								
Business plan development process																								
Business plan approval FRES board																								
Performance Evaluation Process																								
Approve targets for 2021																								
Discuss personal targets with FRESco GM																								
Performance appraisal 2020																								
Midyear Review																								
Discuss targets for 2022																								
Approve targets for 2021																								