

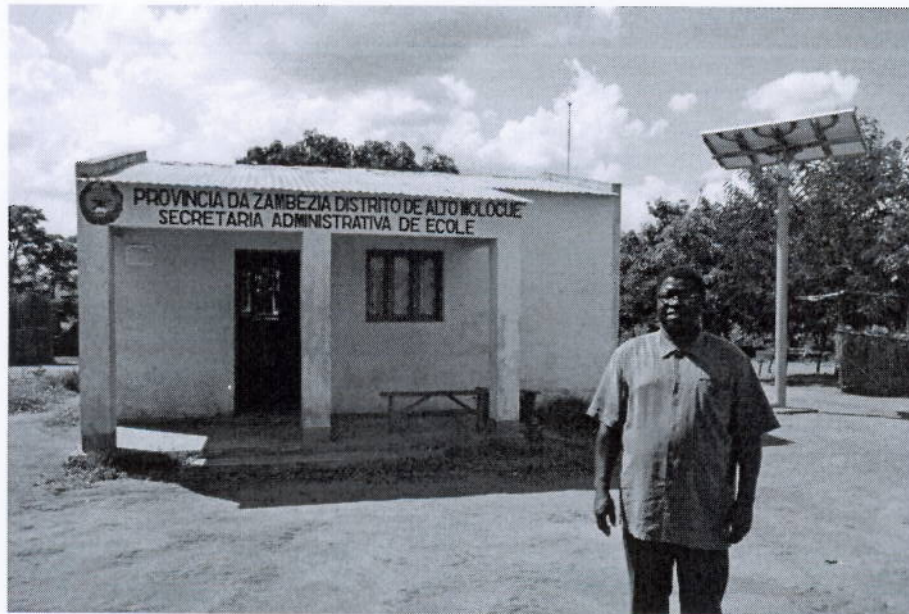


**BTC**



# RESULTS REPORT 2013

## RENEWABLE ENERGY FOR RURAL DEVELOPMENT (MOZ 0901811& MOZ1002211)



February 2014



# RESULTS REPORT 2013

## RENEWABLE ENERGY FOR RURAL DEVELOPMENT

(MOZAMBIQUE)



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## Acronyms

ADB	African Development Bank
AFD	Agence Française de Développement
BTC	Belgian Technical Cooperation
CDM	Clean Development Mechanism
CEO	Chief Executing Officer
DGDC	Directorate for Development Cooperation
DIPREME	Direcção Provincial de Recursos Minerais e Energia
EdM	Electricidade de Moçambique
EIA	Environmental Impact Assessment
EU	European Union
FUNAE	Fundo de Energia
GIS	Geographical Information System
GIZ	Gesellschaft für Technische Zusammenarbeit
ICP	Indicative Cooperation Program
kW	kiloWatt
kWh	kiloWatt hour
kWp	kiloWatt peak
MDG	Millennium Development Goals
ME	Ministry of Energy
MZN	Mozambican Metical, about €0.025 (Jan 2014)
PARP	Plano de Acção para a Redução da Pobreza (=PRSP)
PPP	Public Private Partnership
R&D	Research and Development
RR	Resident Representative of BTC
SC	Steering Committee
SME	Small and Medium-sized Enterprises
TA	Technical Assistant
TFF	Technical and Financial File
UGEA	Unidade Gestora Executora das Aquisições (Procurement Unit at FUNAE)
WB	World Bank

## 1 Intervention at a glance

### 1.1 Intervention form

<b>Intervention title</b>	Renewable Energy for Rural Development (RERD)
<b>Intervention code</b>	MOZ 0901811 and MOZ1002211
<b>Location</b>	Mozambique
<b>Total budget</b>	€23.34m
<b>Partner Institution</b>	Fundo de Energia (FUNAE)
<b>Start date Specific Agreement</b>	20 July 2010 / 28 Dec 2011
<b>Date intervention start /Opening steering committee</b>	14 September 2010
<b>Planned end date of execution period</b>	31 Dec 2015
<b>End date Specific Agreement</b>	19 July 2015 / 28 December 2016
<b>Target groups</b>	Mozambicans in rural areas with no access to electricity in Manica, Sofala, Zambézia and Niassa Provinces
<b>Impact</b>	To promote rural development by providing access to energy
<b>Outcome</b>	To increase access to hydro, solar and wind energy for use in off-grid applications in rural areas
<b>Outputs</b>	<ol style="list-style-type: none"> <li>1. Solar, wind and hydro systems in rural areas installed and operational.</li> <li>2. Increased access of rural households to renewable energy products.</li> <li>3. Technical and administrative capacity of FUNAE is increased.</li> </ol>
<b>Year covered by the report</b>	2013

## 1.2 Budget execution

Description	Budget (€)	Expenditure				Balance	Disbursement rate at the end of 2013
		Previous years		Year covered by report (2013)			
		2010-2012	Amount	2013	Amount		
<b>Total</b>	<b>22 375 000</b>		<b>3 674 076</b>		<b>2 002 892</b>	<b>16 698 031</b>	<b>25%</b>
<b>Output 1 Solar, wind and hydro systems in rural areas installed and operational</b>	<b>17 592 922</b>	2010	21 401				
		2011	2 481 620	2013	1 125 232		
		2012	168 731				
<b>Subtotal - 1</b>	<b>17 592 922</b>		<b>2 671 752</b>		<b>1 125 232</b>	<b>13 795 937</b>	<b>22%</b>
<b>Output 2: Increased access of rural households to renewable energy products</b>	<b>903 676</b>	2010	0				
		2011	811	2013	3 443		
		2012	2 865				
<b>Subtotal - 2</b>	<b>903 676</b>		<b>3 676</b>		<b>3 443</b>	<b>896 556</b>	<b>1%</b>
<b>Output 3: Technical and administrative capacity of FUNAE is increased</b>	<b>3 878 400</b>	2010	4 615				
		2011	361 253	2013	874 215		
		2012	632 777				
<b>Subtotal - 3</b>	<b>3 878 400</b>		<b>998 647</b>		<b>874 215</b>	<b>2 005 537</b>	<b>48%</b>

## 1.3 Self-assessment performance

### 1.3.1 Relevance

	<b>Performance</b>
<b>Relevance</b>	B

*The project is relevant in that still many people in the rural areas do not have access to energy. According to the official statistics of the state electricity utility EdM, some 5.6m people have access to the electricity grid, the remainder (18m) are dependent on off-grid electrification for light, charging cell phones, power for computer / internet, radio, TV. The project still addresses a Government of Mozambique priority to provide more access to energy in the rural areas. The activity still fits within the Government of Belgium development priorities by promoting the standard of living through rural development and the economic opportunities through providing clean power to Mozambicans.*

### 1.3.2 Effectiveness

	<b>Performance</b>
<b>Effectiveness</b>	B

*The intervention is expected to achieve the majority of the objectives, esp. in terms of installed capacity hydro power, solar power and people that benefit from electricity services. The areas where probably less concrete outcomes will be achieved are in the area of electricity access to households and promoting private sector investment into rural electrification. The project has been trying through various ways in engaging in activities to promote market development and private sector investment but the environment of the project is not conducive, nor are there clear regulations in place to implement this part of the project.*

### 1.3.3 Efficiency

	<b>Performance</b>
<b>Efficiency</b>	B

*The activities in the project are mostly achieved through higher costs than initially foreseen due to high prices resulting from international tender procedures. Due to some delays in payment for duties, taxes through the Mozambican Government system, some outputs are achieved later or at higher cost. The project manages most inputs fairly well and through the application of Belgian procurement for short term consultancies. (pre-) payment of taxes by co-managed funds may be considered as well.*

### 1.3.4 Potential sustainability

	<b>Performance</b>
<b>Potential sustainability</b>	B

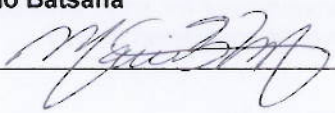
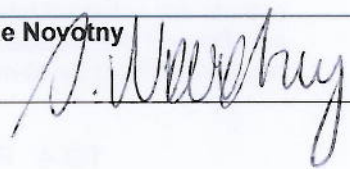
*The sustainability of the intervention is mainly determined by how well the installations will*

*be maintained. Partly FUNAE, partly the line Ministries, partly the beneficiaries will be responsible for this. Through investment in sense of ownership, end-user training, technician training and a maintenance contract for the first years, it is believed that sustainability will be increased. In addition, the project invests in a maintenance department at FUNAE, equipping teams of technicians with material and tools. The RERD also invests in a remote monitoring system which should reduce theft and vandalism as well as notify the maintenance team about any upcoming preventative maintenance.*

*All these interventions however cannot avoid that in 5-8 years the batteries of the solar systems will have to be replaced, hydro-electric equipment will have to be replaced and maintenance of civil works will be required at significant cost, for which there are currently no financial provisions.*

## 1.4 Conclusions

- The project has progressed well in terms of capacity building, GIS system, and delivery of solar systems; identification of hydro sites and the mobilisation of FUNAE delegations.
- There is room for improvement on the results of the aspects of hydro investments, maintenance, market development for pico-solar / pico-hydro and wind energy.
- The management structure of the project leads to long procurement time as the Mozambican and the Belgian procurement regulations are virtually 'stacked up'.
- The political/military situation in the centre of Mozambique has led to additional costs and delays.
- The project provides a flexible way to address the main challenges of FUNAE, i.e. managing country-wide rural infrastructure, planning new investments and enhancing sustainability of installations.

RERD Project Manager	RERD Project Co- Manager
<b>Mario Batsana</b> 	<b>Irene Noyotny</b> 



## 2 Results Monitoring

### 2.1 Evolution of the context

#### 2.1.1 General context

*During 2013, Mozambique experienced a general economic growth of 7% and had elections at the municipality level. Since the middle of the year, a military-political conflict has been affecting mostly the centre of the country and at the end of 2013 there is still a negative travel advice from European Embassies against non-essential travel in the Province of Sofala. Other areas in Mozambique continue to operate but some are experiencing logistical issues through some attacks on the main road N1 from north the south.*

*There is significant investment in energy infrastructure, i.e. gas, coal, large hydro power, the backbone electricity line from north to south and even some oil production. EDM, the main electricity utility aims at electrifying all district capitals by the end of 2015. However, the rural areas are still deprived from access to clean energy sources, which is the focus of FUNAE and the RERD project.*

#### 2.1.2 Institutional context

*During 2013, FUNAE has managed to construct and start-up a solar panel factory. This is a state-owned government facility managed by FUNAE which may serve the upcoming local demand for solar modules. In addition, the Renewable Energy Atlas has been finalised, identifying many interesting opportunities in the area of wind energy, hydro power, solar, geothermal and biomass.*

*FUNAE works under the subordination of the Minister of Energy, as an implementation agency. There has recently been introduced new PPP legislation which may provide a conduit for engagement by FUNAE in engaging closer with the private sector for small-sized projects.*

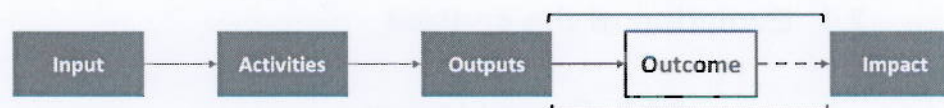
#### 2.1.3 Management context: execution modalities

*During 2013 the execution modality has mainly been co-management. As observed by the Mid-Term review, through long procurement procedures, there are some gains to be made towards carrying out procurement for short term consultancies through Regie modality. Some budget was re-allocated to allow for a project extension to the end of 2015. During the second half of 2013, a FUNAE RERD project manager was appointed, who is the co-signatory with the TA co-manager, allowing for faster decisions making.*

#### 2.1.4 Harmo context

*During 2013, the Portuguese funded Renewable Energy atlas was finalised, which provides opportunities in terms of using data for additional wind energy analysis foreseen under the programme as well as identification of hydro sites. The Norwegian Embassy started support to FUNAE through the contracting of two consultants for a maintenance strategy and a private sector strategy. The RERD project provided input to the ToR of these studies and these will provide a good connection for the project to interact with and assist implementation in both areas. There are other donors working with FUNAE for rural electrification (Korea, India, China) however these activities are not interacting directly with the activities of the RERD project.*

## 2.2 Performance outcome



### 2.2.1 Progress of indicators

Impact: Promote rural development providing access to renewable energy					
Indicators	Baseline value	Value year 2012	Value 2013	Target year 2013	End Target (2015)
Number of electrified schools with evening classes	0	0	0	10	120
Number of institutional births	0	0	0	No data <sup>1</sup>	No data
Number electrified infrastructures that use IT/AV appliances	0	0	60	50	500

Outcome: Increased access to hydro, solar, and wind energy for use in off grid applications in rural areas					
Indicators	Baseline value	Value year 2012	Value year 2013	Target year 2013	End Target (2015)
Number of beneficiaries	0	0	100.000	200.000	600 000
Beneficiary satisfaction	n/a	0	No data <sup>2</sup>	75%	75%
Total power installed	0	0	92	150	1600 kW

### 2.2.2 Analysis of progress made

At the end of 2013, there is insufficient data to report on the impact of the project, as these are infrastructure investments with impact when the devices are operational, at the end of construction phase. The pilot installations of the solar systems were visited, but no impact indicators could be confirmed. This will be carried out further during 2014.

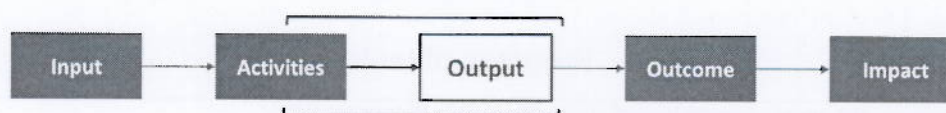
### 2.2.3 Potential Impact

The outcome of the programme is: To increase access to hydro, solar and wind energy for use in off-grid applications in rural areas will be materialised in any way. This outcome will be achieved only partially, as some of the components lack institutional and legal framework and readiness of public institutions. Infrastructure projects have impact, but mainly after finalisation, so impact on promotion of rural development by providing access to energy can only be possible after finalisation of the construction of micro hydro plants, Photovoltaic installations and investments in basic energy infrastructure. With baseline studies and impact assessments done and foreseen, the impact will be measured.

<sup>1</sup> It has not been possible to measure this impact due to the short period of operation of the solar systems in Health Centres

<sup>2</sup> Based on the short period of operation of the systems, and subsequently the small sample of beneficiary interviewed, the satisfaction indicator is not sufficiently reliable yet.

## 2.3 Performance output 1



### 2.3.1 Progress of indicators

Output 1: Hydro, solar and wind systems in rural areas installed and operational					
Indicators	Baseline value	Value 2012	Value 2013	Target year 2013	End Target 2015
Priority locations for solar systems are established	0	600	580	625	625
Number of total power of hydro power plants and solar systems installed, operational and properly maintained	0	PV: 16kWp Hydro: 0kW	PV: 92kWp Hydro: 0kW	PV: 150kWp Hydro: 0 kW	PV: 300kWp Hydro 1200KW
Number of schools, health centres, administrative posts and residences electrified	0	0	188	350	625
Number of solar water pumps installed	0	0	0	14	80
Number of hybrid systems	0	0	0	0	1

### 2.3.2 Progress of main activities

Progress of <u>main</u> activities	Progress:			
	A	B	C	D
1 Needs assessment and feasibility studies		X		
2 Hydropower project implementation		X		
3 Solar power project implementation		X		
4 Wind power measurement			X	
5 Set up Maintenance Structure		X		

### 2.3.3 Analysis of progress made

*There has been good progress made in terms of identification of solar system locations, even though this has been hampered by the political/military conflict in Sofala. Alternative locations are being identified. Even though the actual implementation has been delayed as to earlier planned, the systems that are being built are of good quality and a proper standard has been set for the remainder of the systems. The wind energy activity is being delayed through procurement issues and at the beginning of 2014 still needs approval by Tribunal Administrativo. The hydro power investments also have been hampered by procurement delays and at higher cost than expected. Nevertheless, some good investment opportunities have been identified such as Muoha hydro and Majaua grid extension close to the hydro plant being rehabilitated by EU financing. For the maintenance, various strategy documents have been produced, the first procurement of materials and tools are under way and additional staff both at HQ and at the Delegations have been recruited for this purpose.*

## 2.4 Performance output 2

### 2.4.1 Progress of indicators

Output 2: Increased access of rural households to renewable energy products					
Indicators	Baseline value	Value 2012	Value 2013	Target 2013	End Target
Number of small solar products in rural shops/markets <sup>3</sup>	No data	No data	No data	No data	No data
Number of promotional activities for renewable energy products	0	0	0	0	4
Number of inquiries/ month through "Linha Verde"	0	0	3	20	40

### 2.4.2 Progress of main activities

Progress of <u>main</u> activities	Progress:			
	A	B	C	D
1 Marketing study		X		
2 Promotion of small solar products			X	
3 Institutional support to FUNAE			X	
4 Financial support			X	

### 2.4.3 Analysis of progress made

*Following the recommendations of the MTR (first Quarter of 2013), approved by the Steering Committee in June 2013, the focus of this component will not be merely the development of a microfinance tool. The Legal framework of Mozambique and internal regulations limit acting of partner institution and also caused delays in the approval process (definition of microfinance, required collateral);*

*Based on the assumption that Microfinance itself will not develop the market for small solar systems, a broader focus on market development is now being implemented. The use of investment funds to leverage private investment will remain an option to be developed where legal opportunities exist.*

*The project started the tender process to conduct a market analysis and mapping exercise for renewable energy systems for households and small scale businesses. In order to identify the needs for market development the latest developments in the Mozambican renewable energy market will be taken into consideration and a plan of action for implementation proposed. These tools can include financing options such as micro finance or subsidies for end users or actors in the supply chain as well as or grants and soft loans for the hydro component. The ToR also include recommendations to be made about the role of FUNAE, in what way the institution can support the development of the market and engage with the private sector and have a stronger focus on marketing activities for renewable energy products. The consultancy is expected to start in the first quarter of 2014.*

<sup>3</sup> The baseline and impact for this indicator will be subject of the market study that will commence in Q1 2014

## 2.5 Performance output 3

### 2.5.1 Progress of indicators

Output 3: Technical and administrative capacity of FUNAE is increased					
Indicators	Baseline value	Value 2012	Value 2013	Target 2013	End Target
Organisational capacity development plan	0	0	0	1	1
Number of trained people	0	90	85	80	n/a
Number of training / person days	0	450	568	450	n/a
Number of documents for research projects	0	0	2	2	5
GIS- tool for planning and asset management in place	0	10%	50%	30%	100%

### 2.5.2 Progress of main activities

Progress of <u>main</u> activities	Progress:			
	A	B	C	D
1. Training	X			
2. Research & Development		X		
3. GIS-system		X		
4. Technical assistance	X			
5. Set-up of new delegations	X			

### 2.5.3 Analysis of progress made

The capacity building part of the RERD programme has been relatively successful in providing a broad range of trainings, support to the GIS unit, working together with the Technical Assistants, and investments in new delegations of FUNAE.

Regarding **trainings**, there is progress made towards the achievement of the output, as the capacity building activities are considered to lead to increased capacity of the partner organisation. The training activities are leading to the intended output, as each division is conducting a yearly needs assessment regarding the required improvements and knowledge of each staff member.

Issues that arose are that there is a tendency to look for expensive trainings abroad that might not be the most effective in terms of value for money because of high cost involved in per diems. The participants proposed not always have the required level of language knowledge (English) to benefit the most of the courses.

The inclusion of more local post graduate courses in the training budget has improved in-depth knowledge transfer for institutional capacity building and have a positive effect on the retention of qualified staff within the institution.

FUNAE contracted a consultant to support the **GIS unit** end of October 2013. The objective of the consultancy is to support the establishment and design of an optimal GIS database structure for optimal asset management and planning exercises and to assist FUNAE GIS team in how to utilise and expand this structure.

Under the budget line "**Set up of new delegations**", a delegation in the Province of Inhambane has been opened. The experiences with the pilot phase of providing "working funds" for the delegations for monitoring and supervision missions show that close follow up by the project administrator is needed. In order to improve the timely accountability of the delegations for these funds, a specific training will be taking place in 2014.

## 2.6 Transversal Themes

### 2.6.1 Gender

FUNAE has a Gender coordinator and focal points in the divisions and a gender activity plan. It is coordinating gender activities with other public institutions. The FUNAE Capacity building plan always includes Training on Gender issues. In 2013 two persons participated in a training for " Gender Equality and Diversity" in Arusha, Tanzania, presented from the training institution ESAMI (Eastern and Southern African Management Institute, an intergovernmental regional management development centre ). The objective of the course was to promote Gender with emphasis on equality and mitigation of discrimination. For the baseline and impact studies, gender disaggregated data is included in the questionnaires wherever feasible.

### 2.6.2 Environment

FUNAE is conducting Environmental Assessments for infrastructures to be built. The installation of PV systems for public infrastructure and staff houses are expected to lead to a decrease in the use of batteries and kerosene as energy sources, thus producing less toxic waste and reduce the use of fossil energy sources. Impact of hydro plants on environment will be limited as there will be no dams retaining water, only overflowing walls to lift the water. For any other impact, Environmental Impact Assessments will be held for every individual micro hydro plant.

FUNAE is certified ISO 14001/2004 thus following the requirements for implementing an environmental management system.

### 2.6.3 Other

#### HIV Aids

There is no discrimination within the activities regarding people with HIV/AIDS. FUNAE has a HIV / Aids focal point. Regular meetings for awareness rising are organized within the partner organisation. The International Aids Day is commemorated within the institution through open discussions. Condoms are available at no cost to the staff.

## 2.7 Risk management

Risk Identification		Risk analysis			Risk Treatment			Follow-up of risk			
Description of Risk	Period of identification	Risk category	Probability	Potential Impact	Total	Action(s)	Resp.	Deadline	Progress	Status	
Theft of solar system components (solar panels)	2014	OPS	Medium	Medium	Medium Risk	Awareness raising and involving local community; use anti-theft material; monitoring system	FUNAE / BTC	before finalisation of installation	Training of beneficiaries, use of anti-theft material part of checklist for provisional acceptance	OK	
Budget execution risk, foreseen sites for further hydro development are not suitable or socio-economically not viable		FIN	Low	Medium	Low Risk	Identify more sites than needed for budget execution in order to have a better choice on site development	FUNAE / BTC	ongoing	Sufficient hydro power sites have been identified in 2013	OK	
Low Value for Money of bids requires retendering and further delays		FIN	Medium	Medium	Medium Risk	Improve specifications of tender documents and publish tender in English to receive higher number of bids	FUNAE / BTC	ongoing	Value for money audit being prepared for 2014, tenders published in English	OK	
Natural occurrences (heavy rains, floods) and difficult access due to bad roads delay the execution of infrastructure projects		OPS	Low	Medium	Low Risk	Consideration of risks in planning process and inclusion of clause of risk sharing in contracts and/or insurance	FUNAE / BTC	throughout the project period	Planning of activities assume some delay in the rainy season	OK	
Improper use of components in solar/hydro systems			Low	Medium	Low Risk	Training and leaflets in local language, monitoring visits	FUNAE / BTC	throughout the project period	throughout the project period	OK	
Fluctuation of key staff at partner institution		JUR	Medium	Medium	Medium Risk	Good documentation of project progress to ease new staff to familiarize with the project	FUNAE / BTC	throughout the project period	New incentive scheme being considered by partner organisation	OK	
Procurement rules and procedures according to national legislation are not applied correctly.			Low	High	Medium Risk	Every tender requires authorization by the Ministry of Finance and "Tribunal Administrativo"; the local partner is experienced in the procedures of tenders ;	FUNAE / BTC	ongoing	Most tenders turn out to be legally acceptable but the process is relatively long. Discussion between BTC and partner organisation continues.	OK	
Technical problems and delays affect image of partner negatively		REP	Low	Low	Low Risk	Regular quality surveys and sensitization campaigns	FUNAE / BTC	throughout the project period	throughout the project period	Implementation in the province of Sofala is significantly delayed, some installation cannot be carried out and for these, alternatives are being sought; TAs do not travel to Sofala during negative travel advice; FUNAE selects 'safe' districts within Sofala to advance the work	OK
Political Risk / Security: Political instability, especially in the middle of the country might worsen, affecting security and therefore negatively affect progress		DEV	High	Medium	High Risk	Monitor closely information available about armed attacks in the project area.	FUNAE / BTC	throughout the project period	throughout the project period		OK

### 3 Steering and Learning

#### 3.1 Strategic re-orientations

From the previous action plan of 2012 we learn and ascertain that some difficulties or challenges cannot be solved just by the Project Management Team, as was presumed. Activities that requests smaller amounts, like for R & D, temporary specific expertise, acquisition of small equipment, the Regie modality will be used. On the issue of procurement and legal issues, a special effort in organisation and follow up will be organised by an external consultant in order to reduce the process of the tendering time.

#### 3.2 Recommendations

Recommendations	Actor	Deadline
<i>Future consultancy work with an estimated value lower than €85,000 will be contracted by BTC under Belgian Law, using the "negotiated procedure".</i>	BTC/FUNAE	February 2014
<i>Consider (pre-) payment by the project of local taxes to avoid delays in implementation and payment through a reserved budget line in the administration of the project.</i>	BTC/FUNAE	March 2014
<i>Train TAs in Belgian Procurement Law.</i>	BTC HQ	April 2014
<i>Hire a PPP expert with knowledge about the Mozambican procurement law and PPP law to investigate new PPP opportunities for FUNAE.</i>	BTC/FUNAE	May 2014
<i>Hire a Procurement expert / Time Keeper (full time) with experience of Mozambican and Belgium procurement laws.</i>	BTC/FUNAE	May 2014

#### 3.3 Lessons Learned

Lessons learned	Target audience
<i>Retention tax must be paid on all payments going abroad from Mozambique, amounting to 20% of the value of the payment. In addition, there is 17% VAT and 5-15% Import Duty tax on the items in the project. Together, this amounts to an estimated €7m. This is significantly higher than the initially proposed total contribution of the partner institution of €3m as stated in the TFF. As this money is not always available at partner institution FUNAE, special request must be made to the Ministry of Finance, leading to delays in payment and delay in results.</i>	BTC
<i>The legal status of FUNAE so far has provided room for engaging in with the private sector, for collateral-free lending, nor for the emission of grants. This implies FUNAE cannot fulfil the role foreseen in the TFF for the market development of small solar systems. A recent change in the PPP legislation for small projects may provide some new room, however this must be investigated further.</i>	BTC
<i>Typical procurement under RERD requires the following stages: a) publication of expressions of interest; b) selection of short-listed companies; c) publication of terms of reference; d) selection of winning bid; e) request for no-objection; f) obtaining an external legal opinion; g) sending to Tribunal Administrativo for approval; h) contracting of company. This leads to throughput periods of 10-12 months for consultancies.</i>	BTC



## 4 Annexes

### 4.1 Quality criteria

<b>1. RELEVANCE: The degree to which the intervention is in line with local and national policies and priorities as well as with the expectations of the beneficiaries</b>					
<i>In order to calculate the total score for this quality criterion, proceed as follows: 'At least one 'A', no 'C' or 'D' = A; Two times 'B' = B; At least one 'C', no 'D' = C; at least one 'D' = D</i>					
<b>Assessment RELEVANCE: total score</b>		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
			X		
<b>1.1 What is the present level of relevance of the intervention?</b>					
	<b>A</b>	Clearly still embedded in national policies and Belgian strategy, responds to aid effectiveness commitments, highly relevant to needs of target group.			
X	<b>B</b>	Still fits well in national policies and Belgian strategy (without always being explicit), reasonably compatible with aid effectiveness commitments, relevant to target group's needs.			
	<b>C</b>	Some issues regarding consistency with national policies and Belgian strategy, aid effectiveness or relevance.			
	<b>D</b>	Contradictions with national policies and Belgian strategy, aid efficiency commitments; relevance to needs is questionable. Major adaptations needed.			
<b>1.2 As presently designed, is the intervention logic still holding true?</b>					
	<b>A</b>	Clear and well-structured intervention logic; feasible and consistent vertical logic of objectives; adequate indicators; Risks and Assumptions clearly identified and managed; exit strategy in place (if applicable).			
X	<b>B</b>	Adequate intervention logic although it might need some improvements regarding hierarchy of objectives, indicators, Risk and Assumptions.			
	<b>C</b>	Problems with intervention logic may affect performance of intervention and capacity to monitor and evaluate progress; improvements necessary.			
	<b>D</b>	Intervention logic is faulty and requires major revision for the intervention to have a chance of success.			
<b>2. EFFECTIVENESS TO DATE: Degree to which the outcome (Specific Objective) is achieved as planned at the end of year N</b>					
<i>In order to calculate the total score for this quality criterion, proceed as follows: 'At least one 'A', no 'C' or 'D' = A; Two times 'B' = B; At least one 'C', no 'D' = C; at least one 'D' = D</i>					
<b>Assessment EFFECTIVENESS : total score</b>		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
			X		
<b>2.1 As presently implemented what is the likelihood of the outcome to be achieved?</b>					
	<b>A</b>	Full achievement of the outcome is likely in terms of quality and coverage. Negative effects (if any) have been mitigated.			
X	<b>B</b>	Outcome will be achieved with minor limitations; negative effects (if any) have not caused much harm.			
	<b>C</b>	Outcome will be achieved only partially among others because of negative effects to which management was not able to fully adapt. Corrective measures have to be taken to improve ability to achieve outcome.			
	<b>D</b>	The intervention will not achieve its outcome unless major, fundamental measures are taken.			
<b>2.2 Are activities and outputs adapted (when needed), in order to achieve the outcome?</b>					

	A	The intervention is successful in adapting its strategies / activities and outputs to changing external conditions in order to achieve the outcome. Risks and assumptions are managed in a proactive manner.
X	B	The intervention is relatively successful in adapting its strategies to changing external conditions in order to achieve its outcome. Risks management is rather passive.
	C	The intervention has not entirely succeeded in adapting its strategies to changing external conditions in a timely or adequate manner. Risk management has been rather static. An important change in strategies is necessary in order to ensure the intervention can achieve its outcome.
	D	The intervention has failed to respond to changing external conditions, risks were insufficiently managed. Major changes are needed to attain the outcome.

**3. EFFICIENCY OF IMPLEMENTATION TO DATE: Degree to which the resources of the intervention (funds, expertise, time, etc.) have been converted into results in an economical way**

*In order to calculate the total score for this quality criterion, proceed as follows: 'At least two 'A', no 'C' or 'D' = A; Two times 'B', no 'C' or 'D' = B; at least one 'C', no 'D' = C; at least one 'D' = D*

<b>Assessment EFFICIENCY : total score</b>	A	B	C	D
		X		

**3.1 How well are inputs (financial, HR, goods & equipment) managed?**

	A	All inputs are available on time and within budget.
	B	Most inputs are available in reasonable time and do not require substantial budget adjustments. However there is room for improvement.
X	C	Availability and usage of inputs face problems, which need to be addressed; otherwise results may be at risk.
	D	Availability and management of inputs have serious deficiencies, which threaten the achievement of results. Substantial change is needed.

**3.2 How well is the implementation of activities managed?**

	A	Activities implemented on schedule
X	B	Most activities are on schedule. Delays exist, but do not harm the delivery of outputs
	C	Activities are delayed. Corrections are necessary to deliver without too much delay.
	D	Serious delay. Outputs will not be delivered unless major changes in planning.

**3.3 How well are outputs achieved?**

	A	All outputs have been and most likely will be delivered as scheduled with good quality contributing to outcomes as planned.
X	B	Output delivery is and will most likely be according to plan, but there is room for improvement in terms of quality, coverage and timing.
	C	Some output are/will be not delivered on time or with good quality. Adjustments are necessary.
	D	Quality and delivery of outputs has and most likely will have serious deficiencies. Major adjustments are needed to ensure that at least the key outputs are delivered on time.

**4. POTENTIAL SUSTAINABILITY: The degree of likelihood to maintain and reproduce the benefits of an intervention in the long run (beyond the implementation period of the intervention).**

*In order to calculate the total score for this quality criterion, proceed as follows: At least 3 'A's, no 'C' or 'D' = A; Maximum two 'C's, no 'D' = B; At least three 'C's, no 'D' = C; At least one 'D' = D*

Assessment POTENTIAL		A	B	C	D
SUSTAINABILITY : total score			X		
<b>4.1 Financial/economic viability?</b>					
	A	Financial/economic sustainability is potentially very good: costs for services and maintenance are covered or affordable; external factors will not change that.			
X	B	Financial/economic sustainability is likely to be good, but problems might arise namely from changing external economic factors.			
	C	Problems need to be addressed regarding financial sustainability either in terms of institutional or target groups costs or changing economic context.			
	D	Financial/economic sustainability is very questionable unless major changes are made.			
<b>4.2 What is the level of ownership of the intervention by target groups and will it continue after the end of external support?</b>					
	A	The steering committee and other relevant local structures are strongly involved in all stages of implementation and are committed to continue producing and using results.			
X	B	Implementation is based in a good part on the steering committee and other relevant local structures, which are also somewhat involved in decision-making. Likelihood of sustainability is good, but there is room for improvement.			
	C	The intervention uses mainly ad-hoc arrangements and the steering committee and other relevant local structures to ensure sustainability. Continued results are not guaranteed. Corrective measures are needed.			
	D	The intervention depends completely on ad-hoc structures with no prospect of sustainability. Fundamental changes are needed to enable sustainability.			
<b>4.3 What is the level of policy support provided and the degree of interaction between intervention and policy level?</b>					
	A	Policy and institutions have been highly supportive of intervention and will continue to be so.			
X	B	Policy and policy enforcing institutions have been generally supportive, or at least have not hindered the intervention, and are likely to continue to be so.			
	C	Intervention sustainability is limited due to lack of policy support. Corrective measures are needed.			
	D	Policies have been and likely will be in contradiction with the intervention. Fundamental changes needed to make intervention sustainable.			
<b>4.4 How well is the intervention contributing to institutional and management capacity?</b>					
X	A	Intervention is embedded in institutional structures and has contributed to improve the institutional and management capacity (even if this is not an explicit goal).			
	B	Intervention management is well embedded in institutional structures and has somewhat contributed to capacity building. Additional expertise might be required. Improvements in order to guarantee sustainability are possible.			
	C	Intervention relies too much on ad-hoc structures instead of institutions; capacity building has not been sufficient to fully ensure sustainability. Corrective measures are needed.			
	D	Intervention is relying on ad hoc and capacity transfer to existing institutions, which could guarantee sustainability, is unlikely unless fundamental changes are undertaken.			

## 4.2 Decisions taken by the steering committee and follow-up

Provide an overview of the important strategic decisions taken by the steering committee and the follow-up of those decisions.

Decision to take	Action	Resp.	Deadline	Follow-up	
				Progress	Status
Extension of project until Dec 2015	Minutes of SC	BTC/DGD	asap	Minutes of SC sent to BTC	Pending
	Approval by BTC HQ/DGD	DGD	asap	Request sent to BTC	
	Request to extend TA contracts	BTC	asap	In process	
Modification of Logical Framework Results and Adaptation of Project Budget Lines (following MTR recommendations and project extension)	Modification needs adjustment of indicators		08/2013		Done
	Approval of adjusted Log frame by next SC		03/2014	SC to be held in Mar 2014	Pending
	Modify Budget lines in FIT	LAF/BTC HQ	08/2013	done	Done
	Creating Maintenance unit	FUNAE	09/2013		Done
Stronger focus on Maintenance of Solar systems	Maintenance Strategy	FUNAE	12/2013		Done
	Training of Maintenance unit	FUNAE	12/2014		On-going
	Agree on improved internal Procedures	FUNAE	12/2013	Proposal presented to BTC Res Rep	Done
Speeding up of procurement process	Hire external procurement expert	BTC	04/2014		On-going
	Increase of use of B procurement for short consultancy	BTC	01/2014	First consultancies already published	Done
Improvement of Project Management Structure according to TFF	Regular PMT meetings	PMT	ongoing	PMT meetings can now be called by Project Director	implemented

### 4.3 Updated Logical framework

<i>Intervention logic</i>	<i>Indicators</i>	<i>Means of Verification</i>	<i>Risks and assumptions</i>
<b>Global Objective:</b> To promote rural development by providing access to energy	<ul style="list-style-type: none"> <li>- Number of electrified schools that have evening classes</li> <li>- Number of institutional births</li> <li>- Use of IT /AV in electrified infrastructures</li> </ul>	<ul style="list-style-type: none"> <li>- Surveys from line ministries</li> <li>- Baseline Survey</li> <li>- FUNAE monitoring system</li> </ul>	Energy systems are used as intended
<b>Specific Project Objective:</b> To increase access to hydro, solar and wind energy for use in off-grid applications in rural areas	<ul style="list-style-type: none"> <li>- Number of beneficiaries</li> <li>- Beneficiary satisfaction</li> <li>- Total power installed</li> </ul>	<ul style="list-style-type: none"> <li>- Surveys/impact evaluations</li> <li>- Project reports</li> <li>- GIS data base</li> </ul>	Systems are well designed and installed Projects are implemented on time and on budget
<b>Intermediate Result 1:</b> Solar, wind and hydro systems in rural areas installed and operational	<ul style="list-style-type: none"> <li>- Priority locations for solar systems are established</li> <li>- Number of renewable energy systems installed, operational and properly maintained</li> <li>- Number of schools, hospitals and public administration buildings and residences electrified</li> <li>- Number of SPV water pumps installed</li> </ul>	<ul style="list-style-type: none"> <li>- Data base of planning division</li> <li>- Project reports</li> <li>- Surveys</li> <li>- GIS data base</li> </ul>	Access to sites does not deteriorate Proper maintenance by ministries
<i>For activities:</i>			
<b>Activity 1.1:</b> Needs assessment and feasibility studies	Consultancy, Min Education, Min Health, Min Energy	€1.300.000	Quality consultants available
<b>Activity 1.2:</b> Hydropower project implementation	Consultancy (supervision), Construction Companies, ARA	€5.400.000	Functional management modality available. Viable sites are found.
<b>Activity 1.3:</b> Solar power project implementation	Consultancy (supervision), Companies, Min Education, Min Health	€9.300.000	Proper maintenance by ministries
<b>Activity 1.4:</b> Wind power	Consultancy (supervision), Companies	€500.000	Use of small scale wind is viable
<b>Activity 1.5:</b> Set up Maintenance Structure	Min Education, Min Health, Min State Administration, Companies, FUNAE delegations	€1.100.000	Institutions benefiting from systems show commitment (in actions) to ensure maintenance.

<i>Intervention logic</i>	<i>Indicators</i>	<i>Means of Verification</i>	<i>Risks and assumptions</i>
<b>Result 2:</b> Increased access of rural households to renewable energy products	<ul style="list-style-type: none"> <li>- Number of small solar products in rural shops/markets</li> <li>- Number of promotional activities for renewable energy products</li> <li>- Number of inquiries through "Linha Verde"</li> </ul>	Survey	Private companies/suppliers and FUNAE agree on smooth cooperation model; Role of FUNAE for Private Sector Support defined
<i>For activities:</i>			
<i>Actors</i>			
<b>Activity 2.1:</b> Marketing study	Consultant	€200.000	Quality consultant available
<b>Activity 2.2:</b> Promotion of small solar products	Media, FUNAE, consultant, marketing companies, radio, etc.	€200.000	Rural marketing infrastructure available
<b>Activity 2.3:</b> Institutional support to FUNAE	Consultant	€200.000	Quality consultants available
<b>Activity 2.4:</b> Financial support	Private companies	€300.000	Private companies willing to cooperate with FUNAE
<b>Result 3:</b> Technical and administrative capacity of FUNAE is increased	<ul style="list-style-type: none"> <li>- Organisational capacity development plan</li> <li>- Number of trained people</li> <li>- Number of training person days</li> <li>- Number of document research projects</li> <li>- GIS- tool for planning and asset management in place</li> </ul>	<ul style="list-style-type: none"> <li>- Reports,</li> <li>- Audits,</li> <li>- GIS asset management system</li> </ul>	<ul style="list-style-type: none"> <li>TA's are provided with sufficient space to contribute to organisational capacity building.</li> <li>Trained people stay at FUNAE (no brain-drain)</li> </ul>
<i>For activities:</i>			
<i>Actors</i>			
<b>Activity 3.1:</b> Training	FUNAE staff	500.000 €	
<b>Activity 3.2:</b> R&D	FUNAE	200.000 €	
<b>Activity 3.3:</b> GIS-system	Consultancy, software provider, GPS suppliers	300.000 €	
<b>Activity 3.4:</b> Technical assistance	BTC	2.375.000 €	
<b>Activity 3.5:</b> Set-up of new delegations	FUNAE	500.000 €	
<i>Risks and assumption</i>			

The logical framework underwent some changes with regard to updated indicators that were more relevant to measure the impact.

#### 4.4 MoRe Results at a glance

Logical framework's results or indicators modified in last 12 months?	<i>Yes, the MTR recommendations were implemented and some minor changes to the indicators were made.</i>
Baseline Report registered on PIT?	Yes
Planning MTR (registration of report)	MTR already carried out in Q1 2013
Planning ETR (registration of report)	09/2015 (estimate)
Backstopping missions	12/2011, 11/2013

## 4.5 Budget versus current (y – m) Report

RERD Updated Overall Budget			Per Year					
			Budget Allocation	Realised 2011	Realised 2012	Realised 2013	Planned 2014	Planned 2015
All amounts in €								
	Mode							
<b>A</b>	<b>Increase access to energy</b>		<b>21 975 000</b>	<b>2 851 732</b>	<b>805 124</b>	<b>2 002 892</b>	<b>7 725 000</b>	<b>8 570 000</b>
A01	Access to renewable energy services is increased		17 200 000	2 504 521	167 233	1 125 233	6 490 000	6 905 000
A 1	1 Needs assessments, feasibility Studies	Co-Man	1 300 000	75 858	40 384	170 998	490 000	520 000
A 1	2 Hydroprojects	Co-Man	5 400 000	-	23 475	192 677	2 650 000	2 530 000
A 1	3 Solar electrification	Co-Man	9 000 000	2 428 663	99 141	760 670	3 000 000	2 710 000
A 1	4 Wind power applications	Co-Man	500 000	-	4 232	39	150 000	345 000
A 1	5 Maintenance Structure	Co-Man	1 000 000	-	-	848	200 000	800 000
A02	Access to renewable energy products is increased		800 000	811	2 865	3 443	210 000	580 000
A 2	1 Marketing Study small solar system market	Co-Man	200 000	811	2 865	3 443	100 000	90 000
A 2	2 Promotion of small solar system market	Co-Man	200 000	-	-	-	50 000	150 000
A 2	3 Institutional support to FUNAE - marketing	Co-Man	200 000	-	-	-	60 000	140 000
A 2	4 Financial Incentives / Subsidies solar system market	Co-Man	200 000	-	-	-	-	200 000
A03	Capacity of FUNAE is increased		3 975 000	346 400	635 026	874 216	1 025 000	1 085 000
A 3	1 Training	Co-Man	600 000	26 861	81 905	205 617	165 000	120 000
A 3	2 Research And Development	Direct	200 000	-	3 400	0	75 000	120 000
A 3	3 Implement GIS asset management system	Co-Man	300 000	-	57 426	26 058	75 000	140 000
A 3	4 Technical Assistance MOZ0901811	Direct	1 700 000	319 539	328 500	317 525	340 000	390 000
A 3	5 Set up new delegations / offices	Co-Man	500 000	-	57 426	158 149	200 000	85 000
A 3	6 Technical Assistance MOZ1002211	Direct	675 000	-	106 369	166 867	170 000	230 000
X	Contingencies		247 000	893	122 544	69 144	30 000	20 000
X01	Contingencies		247 000	893	122 544	69 144	30 000	20 000
X 1	1 Contingencies	Co-Man	247 000	893	122 544	69 144	30 000	25 000
Z	General Means		1 118 000	86 177	69 805	172 926	337 500	433 900
Z01	Personnel Costs		140 000	6 107	24 653	28 566	30 000	45 000
Z 1	1 Account and Administrative Officer	Direct	140 000	6 107	24 653	28 566	30 000	45 000
Z02	Investment Costs		69 000	56 832	1 600	61	5 000	5 400
Z 2	1 Vehicle	Direct	54 000	53 965	-	-	-	0
Z 2	2 ICT	Direct	15 000	2 867	1 600	61	5 000	5 400
Z03	Operating Costs		624 000	11 403	30 239	69 242	253 500	253 500
Z 3	1 Vehicle operation costs and maintenance	Direct	22 000	5 212	9 233	7 087	-	-
Z 3	2 Communication costs	Direct	10 000	422	834	1 690	3 500	3 500
Z 3	3 Mission Costs	Direct	130 000	3 297	19 825	24 524	40 000	40 000
Z 3	4 Other operating costs	Direct	462 000	2 472	347	35 940	210 000	210 000
Z04	Audit, follow-up and evaluations		285 000	11 835	13 313	75 057	49 000	130 000
Z 4	1 Audit	Direct	65 000	8 890	13 313	11 302	16 000	15 000
Z 4	2 Internal control and risk assessment	Direct	50 000	-	-	6 767	22 000	22 000
Z 4	3 Mid-term and final evaluation	Direct	130 000	-	-	56 042	-	73 000
Z 4	4 Baseline Study	Direct	25 000	2 145	-	-	5 000	14 000
Z 4	5 Follow-up and backstopping	Direct	15 000	800	-	946	6 000	6 000
<b>TOTAL</b>			<b>23 340 000</b>	<b>2 938 802</b>	<b>997 473</b>	<b>2 244 962</b>	<b>8 092 500</b>	<b>9 023 900</b>
Cumulative				2 938 802	3 936 274	6 181 236	14 273 736	23 297 636
				13%	17%	26%	61%	100%
Regie			3 693 000	405 716	508 074	657 318	922 500	1 173 900
Co-Management			19 647 000	2 533 086	489 399	1 587 644	7 170 000	7 850 000

## 4.6 Communication resources

There have been a few publications of the project on the BTC website in 2013:  
<http://www.btcctb.org/en/casestudy/solar-electricity-school-brings-new-opportunities>  
 As the concrete results during the last two years of implementation will be more diverse, it is expected also more communication resources will be created in 2014/15.