



BR

DEVELOPMENT BANK OF RWANDA



(PSPE, RWA 15 096 11) RESULTS REPORT 2018/2019

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1 Acronyms

ACCA	Association of Chartered Certified Accountants
BRD	Development Bank of Rwanda
СВ	Capacity Building
CEO	Chief Executive Officer
СРА	Certified Public Accountant
DFS	Detailed Feasibility Study
EAC	East African Community
EDCL	Energy Development Corporation Limited
EPD	Energy Private Developer
eSWG	Energy Sector Working Group
ETR	End-Term Review
НН	Household
HR	Human Resources
IT	Information Technology
MINALOC	Ministry of local government
MFI	Micro Finance Institutions
MGD	Mini-Grid Developer
MINECOFIN	Ministry of Economic Planning and Finance
MININFRA	Ministry of Infrastructure
MTR	Mid-Term Review
NEP	National Electrification Plan
OSC	Off-grid Solar Company
PAYG	Pay as you go
PIT	Project Information Tool
PSC	Project Steering Committee
PSPE	Private Sector Participation in the Generation and Distribution of Electricity
PV	Photovoltaic
RAFI	Responsible for Administration and Finance
RE	Renewable Energy
REF	Renewable Energy Fund
REG	Rwanda Energy Group
RES	Rural Electrification Strategy
RFP	Request for proposal
RURA	Rwanda Utilities Regulatory Agency
SACCOs	Saving and Credit Cooperatives
SC	Steering Committee
SHS	Solar Home System
SME	Small and Medium Enterprise
ТА	Technical Assistant
TFF	Technical and Financial File
ToR	Terms of Reference
WB	World Bank
WD	Working Day

2 Intervention at a glance

2.1 Intervention form

	Private Sector Participation in the Generation and Distribution of Electricity from			
Intervention title	Renewable Sources			
Intervention code	RWA1509611			
Location	Kigali			
Total budget	€ 2.000.000			
Partner Institution	Development Bank of Rwanda			
Start date Specific Agreement	15 th March 2018			
Date intervention start /Start of first TA	04 Th October 2018			
Planned end date of execution period	30 th September 2021			
End date Specific Agreement	14 th March 2022			
Target groups	 The beneficiaries of the intervention are: ✓ The Development Bank of Rwanda (BRD) ✓ Private companies (project developers) providing electrification services (mini-grids, PAYG) or disseminating renewable energy equipment, benefitting from access to finance, training and project development support and networking with other (inter)national companies. EPD members can be among those beneficiaries. ✓ End-users, such as rural households; social facilities ✓ Rwanda's financing sector will also benefit from the intervention through financing via BRD (on-lending) through knowledge sharing and by building bridges between financing institutions that are active on the market (SACCOs, banks & MFIs) 			
Impact ¹	The energy sector is able to provide sufficient, reliable and affordable energy for all Rwandans			
Outcome	The generation and distribution of electricity from renewable resources is increased by the participation of the private sector supported by the intervention.			
Outputs	BRD is able to analyze the viability of project proposals BRD is able to proactively identify a pipeline of potentially viable projects and to assist the private sector to develop them			
Period covered by the report	October 2018 (effective start of the project) -June 2019			

 $^{^{1}}$ Impact refers to global objective, Outcome refers to specific objective, output refers to expected result $PSPE-Annual\ report\ 2018/2019$

2.2 Budget execution

	Budget	Total Expense by June 2019	Balance	Disb. rate 30th June 2019
Total	2 000 000	205 703.41	1 794 296.59	10.28%
BRD is able to analyze the viability of project proposals	840 000	54 425.41	785 574.59	6%
BRD is able to proactively identify a pipeline of potentially viable projects and to assist the private sector to develop them	453 000	20 097.95	433 702.05	4%
Contingency	221 800	0	221 800	0
General Means	484 400	131 180.05	353 219.95	27%

2.3 Self-assessment performance

2.3.1 Relevance

	Performance
Relevance	А

The PSPE project supports the Development Bank of Rwanda (BRD) in Renewable Energy Project Analysis. BRD is responsible for the financing aspect of renewable energy project development and for developing a pipeline of potential activities and identifying potential investors.

PSPE is mainly providing capacity building services to private project developers to or via the Development Bank of Rwanda (BRD) in order to access more easily a large amount of financing for the development of renewable energy projects.

The PSPE project is in line with BRD mandate and key intervention sectors including Energy sector.

Activities are permanently harmonized with the WB REF project, which has a large portion allocated to renewable energy project financing through financing institutions such as commercial banks, MFI and SACCO's, and direct lending to mini-grid developers and off-grid solar companies. The collaboration between PSPE and REF is a right mechanism to make sure synergies are maximized for the achievement of BRD's vision.

2.3.2 1.3.2 Efficiency

	Performance
Efficiency	А

Care has been taken to ensure value for money for every penny for project activities and results. The use of financial resources is regularly checked against not only the importance of expected results, but also against other possible options in terms of opportunity costs.

With regard to the quality of outputs, taking into account the transparency in procurement for service providers and consultants/ experts and recruitment of staff, quality assurance is guaranteed by joint efforts of both BRD and Enabel to standardize results and processes, through the co-management mechanisms.

2.3.3 1.3.3 Effectiveness

	Performance
Effectiveness	В

Strategies have been put in place by the intervention management unit to ensure the achievement of project outcome in terms of quality and coverage. Strategies and activities to ensure achievement of outcome include the following:

- ✓ Engagement of concerned stakeholders in the activity plan's implementation
- ✓ Risks mitigation measures such as the mini-grid feasibility study support to ensure flow of request for mini-grid project proposal financing
- ✓ Awareness campaign at provincial level involving local authorities to increase uptake loan from BRD to increase access to electricity by households

 \checkmark The cost plus incentive contract with the renewable energy financing expert to provide technical PSPE-Annual report 2018/2019 $_{\rm 6}$

support to BRD in project financing analysis.

2.3.4 1.3.4 Potential sustainability

	Performance
Potential sustainability	А

The sustainability of the project rests on the next three key factors: (1)Ownership of PSPE by BRD, (2)the long term nature of some project deliverables (bankable projects to be financed by BRD through REF, Renewable Energy project Financing analysis tools etc..) and (3)beneficiaries' involvement in all steps of the project implementation from planning to evaluation.

The PSPE is 100% embedded in BRD structure, with the BRD Executive Committee accountable for the successful implementation of the project. For this reason the CEO of the Bank gives final approval to all activities that are implemented in the project. To ensure the PSPE technical assistance will last long after the project closure a number of tools to be used in the renewable energy financing have been developed and BRD staff were involved in the development of these tools that are already being used. Not only capacity is created but also utilized and retained.

2.4 Conclusions

The development of the private sector in the renewable energy value chain is very paramount for the universal energy access, the target set by the Government of Rwanda by 2024. This makes both REF and PSPE projects relevant as embedded in the Development Bank of Rwanda. The day-to-day implementation of PSPE project has been entrusted to management team composed of representatives of BRD and Enabel under the supervision of CEO of BRD and the Resident Representative of Enabel, while the strategic guidance is provided by the Steering Committee chaired by the PS of MININFRA and the Resident Representative of Enabel. Though it is early to confirm the project sustainability, there are some factors such as high ownership by BRD and the long term nature of some activities that are most likely to guarantee that project achievements will survive after its closure.

On negative notes, the fact that purchasing power of households in Rwandan rural areas which are the targets of REF is relatively low makes difficult for households to afford solar home systems.

National execution official

Hector Mutijima

Enabel execution official

Gratien Gasaba

3 Results Monitoring

3.1 Evolution of the context

3.1.1 General context

Electrification remains high on agenda for Government of Rwanda. The Government has recently endorsed the new National Electrification Plan (NEP) defining the way the electrification happens in the country by the universal electrification target 2024. This new plan primarily provides a geographic demarcation of where the on-grids and off-grids electricity measures would be aimed at.

In Rwanda, off-grid electricity access is provided mainly through small mini grid (pico-hydro or solar PV) and stand-alone solar PV systems. Mini-grids are not new in Rwanda, pico-hydro powered village grid plants are found across the country, particularly in the western province. These plants are mainly developed by local entrepreneurs. In some cases, the local administration initiates such projects, which are later managed by the community.

The World Bank's Doing Business Report, 2019 indicates a remarkable improvement in electricity sector index in Rwanda with the country's ranking on electricity indicator moving up to 68th from 119th in 2017. The last publicly available data available in February, 2019 on the country's electricity connectivity rate in February, 2019 stood at 51% that includes 37% connection coming from the national grid and 14% connections through off-grid systems (mainly solar). The connections are expected to have further soared up in between.

Rwanda is also set to benefit from USAID's new programme called East Africa Energy Program (EAEP). The \$65M programme is planned to provide technical assistance and capacity building to utilities in area of power supply optimization, on-grid connections, regional power trade to 10 east African countries, including Rwanda.

WB's Renewable Energy Fund (REF), the financial intermediary credit lending facility for Rwanda to offgrid renewable energy projects, currently administered by Development Bank of Rwanda has made its 4th window of lending mechanism open. This particular window offers direct financing facility to eligible off grid solar companies.

Several international companies supplying SHS have already established businesses in Rwanda. Examples include companies such as MOBISOL, IGNITE, BBOXX, NOTS, OFFGRID ELECTRIC, AZURI, etc. The companies offer different packages, including pay-as-you-go (PAYG) model. The model allows households to spread out payment for the equipment over a period of months or years to help make the systems affordable.

3.1.2 Institutional context

BRD, the Development Bank of Rwanda is a Public Company Limited by Shares, for more than five decades it has been the sole provider of long term finance and has significantly facilitated the emergence of different productive enterprises in the private sector.

The Development Bank of Rwanda (BRD) has been entrusted by the Government of Rwanda the mandate to provide long term-finance and facilitate the emergence of different productive enterprises in the

private sector. The BRD's priority sectors are energy, exports, education, agriculture and housing.

The Development Bank of Rwanda (BRD) has been managing World Bank financed Renewable Energy Fund (REF) project with the objective to increase electricity access in Rwanda through off-grid technologies and facilitate private-sector participation in renewable off-grid electrification. It aims to finance for 445,000 off-grid connections which is expected to benefit around 1.8 million Rwandans and Small and Micro-Enterprises (SMEs). The USD 48.94 million REF works under four windows: a. Window 1 – On-lending through Saving and Credit Cooperative Societies (SACCOs) to households and micro-enterprises; b. Window 2 – On-lending through banks (commercial and microfinance) to households and small and medium enterprises (SMEs); c. Window 3 – Direct financing of mini-grid developers; and d. Window 4 – Direct financing of locally registered Off-grid Solar Companies (OSCs) supporting Tier 1 or higher solar systems.

In March 2018, the Government of Rwanda and the Kingdom of Belgium signed a specific agreement establishing the project on Private Sector Participation in the Generation and Distribution of Electricity from Renewable Sources-PSPE. The purpose of PSPE project is to increase electricity from renewable sources by the participation of private sector through capacity building and technical assistance. The PSPE is jointly implemented by the Development Bank of Rwanda (BRD) and the Belgium development Agency-Enabel.

The Development Bank of Rwanda and the Swedish International Development Cooperation Agency (SIDA) have signed two Energy Portfolio Guarantee agreements relating to BRD lending (direct and onlending) to the energy sector. The on-lending guarantee facility worth US\$ 15 million will be channelled through financial institutions to facilitate increased access to finance for SMEs to support the development of affordable and clean energy in Rwanda. It is also expected to provide solutions to the constraints that the low access to electricity has on economic and social development. The guarantee shall be directed towards loans to the renewable energy sector, and towards end users of renewable energy solutions, such as households and micro-businesses.

As part of the implementation of REF and other energy projects, BRD has recently accelerated its partnership with key stakeholders in the energy sectors. It is in this context that to tackle the problem of lack of bankable projects submitted to BRD for REF financing, BRD and EDCL formally agreed to work jointly on the hands-on support to developers for mini-grid feasibility studies.

3.1.3 Management context: execution modalities

The PSPE specific agreement was signed on March 15th 2018 for a period of 4 years. PSPE is implemented jointly by the Development Bank of Rwanda (BRD) and the Belgian Development Agency – ENABEL. The start-up period of the project of 6 months focused mainly on the project planning and developing the baseline against which the project will be evaluated. The end of the start-up period was marked by the approval of the project implementation manual and the baseline reports which together make the start-up report.

The PSPE is implemented in co-management modality by a steering committee chaired by the Permanent Secretary of MININFRA and co-chaired by the Resident Representative of Enabel. The day-to-day project management is the responsibility of a project management unit composed of a representative of BRD (REF project manager) and a representative of Enabel (PSPE intervention manager).

Given that PSPE project mainly supports the implementation of the Renewable Energy Funds in BRD, the successful implementation of each project depends on the joint collaboration of team members of these PSPE-Annual report 2018/2019

two projects.

3.1.4 Harmo context

The purpose of PSPE is to support the Rural Electrification Strategy (RES) by facilitating private project developers to contribute to the RES objectives of increasing access to electricity in rural areas. Because the national grid does not reach most of the rural areas in Rwanda, the PSPE project focuses on sustainable energy and mainly in the off-grid area. For this to happen, project developers need to have confidence that conditions are conducive for them to invest in renewable energy technology, that they will receive a return on their investments, and that the banking system can assist them correspondingly.

Precisely, the PSPE project focus is to:

- i. Contribute to the increase of energy generation in the country by leveraging private sector investment.
- ii. Remove barriers for private sector investment by:
- Building capacities of private sector developers in terms of both technical and business aspects of energy project;
- Providing TA support for identifying investment opportunities, increase assessment capacity for determining the viability, and develop analytical tools and selection criteria for projects, procedures, etc.
- iii. Emphasis on increasing sustainability, efficiency and effectiveness of electricity access efforts, and scaling up private sector investment by providing support

The PSPE intervention was developed in harmonization and synergy with the REF project, in order to be complementary and avoid overlaps.

3.2 Performance outcome



The outcome of the PSPE is *"The energy sector is able to provide sufficient, reliable and affordable energy for all Rwandans."*

3.2.1 Progress indicators

Outcome : The generation and distribution of electricity from renewable sources is increased

The PSPE steering committee held on 5th October 2018 approved the project baseline report including the result matrix. The result matrix includes indicators of outcome

Indicators	Baseline value	Value June 2019	Target September 2019	End Target September 2021
Number of HH electrified through REF (Headed by M/F)	0	492	24,237	194,900
Number of people provided with new or improved electricity fully functional	0	2,541	98,039	784,314
All four REF windows show significant disbursement (PV lanterns and PV systems: SACCOs, local banks, mini-grids)	600,000	1,227,072	2,500,000	20,000,000
Increased private sector investment in renewable energy electrification	0	Not known	750,000	6,000,000

Source: REF Project Quarterly Implementation Status Report, January 1 – June 30, 2019; 1 US\$ = 905 FRW

3.2.2 Analysis of progress made

Concerning the number of households electrified through REF and the number of people provided with new or improved electricity, as well as the REF disbursement rate, three months before due date, the achievements are far below the targets set in the baseline report. The reason is that the implementation of REF is still facing big challenges in terms of disbursement and effective demand from households for electrification. As of June 30, 2019, REF had appraised 74 SACCOs of which 53 SACCOs (only 71.62%) were prequalified and 44 SACCOs have signed Subsidiary Financing Agreement with REF. The low prequalification rate is mainly due to stringent eligibility criteria. The loan disbursement from SACCOs to households' uptake SHS has remained a challenge mainly due to the SACCOs capacity to proactively manage the energy lending product, which is new for them, and collateral requirement. To address this challenge BRD through PSPE and REF in collaboration with REG and MINALOC has organized provincial awareness campaigns to ensure end users have full and accurate information about REF and how they can benefit from it. Another measure that has been taken by BRD is to hire the Frankfurt School of Finance and Management to build the capacity of SACCOs and Legacy XP for extensive awareness campaign.

3.2.3 Potential Impact

According to the TFF the impact to which the PSPE project must contribute reads as follows: "The energy sector is able to provide sufficient, reliable and affordable energy for all Rwandans". At the moment, it is still early to assess the extent to which implemented activities and achieved results contribute to this impact.

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3.3 Performance output 1



3.3.1 Progress of indicators

Output 1: BRD is able to analyze the viability of project proposals

Indicators	Baseline value	Value June 2019	Target September 2019	End Target September 2021
The capacity of the renewable energy unit of BRD, expressed	O staff trained (M/F	21	5	10
by the number of staff at BRD trained and able to assess	30 WD for project below 50Million	16	25	20
renewable energy projects and by the average time for proposal analysis (delay between proposal received and feedback	60 WD for project between 50Million and 1 billion	NA	50	30
to the client)	90 WD for project above 1 billion	NA	80	45

3.3.2 Progress of main activities

Progress of main activities ²	Ρ	rog	res	s:
	А	В	С	D
Procurement of the Renewable Energy Financing Expert	Х			
BRD Capacity Needs analysis and capacity building plan	Х			
Support the BRD in the RE project financing analysis (RE Financing Expert)		Х		
Support the Implementation of REF through lending to SACCOs		Х		
Support the implementation of REF through lending to MFI			Х	
Support the implementation of REF through lending to Banks			Х	
Support the implementation of REF through lending to off-grid solar companies (OSCs)		Х		
Develop analytical tools and software for due diligence and risk assessment specific for RE projects		Х		
Develop tools for monitoring and evaluation of RE projects		Х		
Organize REF and PSPE joint Planning and Review meetings		Х		
Training of BRD staff in due diligence and risks assessment specific for RE projects		Х		
Training of BRD staff in Renewable Energy Project analysis and management		Х		
provincial awareness campaign to stimulate effective demand for SHS and lending from REF		Х		

3.3.3 Analysis of progress made

Technical Assistance to BRD

During the Quarter 2 of 2019, the PSPE project supported the development of following tools and instruments for BRD to meet its energy sector targets:

- ✓ Energy Financing Policy and Procedural Manual for BRD to be used by BRD as whole for energy related loan appraisal
- ✓ Financial Models for REF Window 3 (lending to Mini-grid) to be used by BRD, SACCOs and Banks to assess whether to finance/build the project.
- ✓ Term Sheets for three Loan Proposals under window 4 used by BRD and its clients. The term sheets equivalent to US\$ 13.73 million have been signed by the clients.
- ✓ Template of Business Plan for Off-grid Solar Companies. To be used by Off Grid Solar Companies to develop their RE business plan
- ✓ Revised REF Operations Manual. The manual is revised to consider the Window 4 lending request and it provides guidelines for REF implementation. Main users are BRD/REF, OSCs, SACCOs, MGDs, and Banks Template for Off-grid Solar Companies Loan Appraisal to be used by REF to assess the loan proposal of OSCs

² A: The activities are ahead of schedule

B The activities are on schedule

C The activities are delayed, corrective measures are required.

D The activities are seriously delayed (more than 6 months). Substantial corrective measures are required.

✓ Lending procedure for Window 4. It helps BRD/REF to quickly analyse the loan under Window 4 thus reduces the time taken for analysing loan.

In addition to the development of tools to support the implementation of Renewable Energy in BRD, the PSPE project team implemented other activities aimed at realizing the PSPE targets set in the baseline.

The provincial awareness campaign

The purpose of this event that started in the Northern and Western province was to build awareness on off-grid renewable energy through interactions between Government officials and the private sectors. During the event, off-grid solar companies have been given opportunities to demonstrate their solar products. The awareness campaign was spearheaded by governors of provinces, who recommended that the access to electricity by household be included in the local government performance contract, and increased partnership between BRD and local authorities to speed up electrification of rural household through lending from the Renewable Energy Funds.

Training of BRD Staff

The table below provides a summary of capacity	building activities implemented for DDD staff
The table below provides a summary of capacity	building activities implemented for BRD starr
	· · ·

CB activities	Number of Beneficiaries
Training in RE Project financing	3 BRD staff
REF and BRD team Building	36 BRD staff
ACCA training	1 BRD staff
CPA training	1 BRD staff
Exposure visit to Nepal and Bangladesh	5 BRD staff and 5 staff from BRD partner
	institutions in Energy sector
Strategic Risk Assessment workshop	22 BRD staff
Training in RE financing and deploying	1 BRD staff

3.4 Performance output 2

3.4.1 Progress of indicators

Output 2: BRD is able to proactively identify a pipeline of potentially viable projects and to assist the private sector to develop them.

Indicators	Baselin e value	Value June 2019	Target September 2019	End Target September 2021
The size of the energy portfolio of BRD, indicated by the number of mini-grid project proposals that are approved by BRD	0	0	3	22
The number and value of agreements signed between BRD and SACCOs	24	44/ \$1,227,072	44 agreement s /1,100,000 \$	111 agreements /2,701,525\$
The number and value of agreements signed between BRD and MFI & Banks	0	4 /0\$	2 agreement s /2,450,980 \$	8 agreements /15,686,275\$
The number and value of agreements with private companies (mini-grid)for the realization of renewable energy projects (indirect)	0	0	2 agreement s /130,719	17 agreements /1,045,752\$
The number of events campaigns organized and male/female participants at these events. Disaggregated in males and females	0	4 events/368 participants(31 1M /57F)	2 events / 100 participant s (50/50)	6 events / 600 participants (300/300)
The number of companies reached for training and support	0	39	11	90

Progress of <u>main</u> activities ³		Pre	ogre	ss:
	А	В	С	D
Facilitate the financial institutions, Mini-Grid developers and Off-Grid Solar Companies (OSCs) to reach out their members (SMEs and households) via appropriate communication and information sharing methods		Х		
Support the promotion of productive use of RE by men and women entrepreneurs		Х		
Organize training and other specific event to increase the number of skilled technicians for the installation and maintenance of SHS with priority to women		Х		
Procurement of an international firm for the hands-on coaching support for the mini-grid project feasibility study			Х	
Conduct a pre-feasibility study for RE sites for local companies		Х		
Conduct feasibility study and develop bankable projects to be financed by REF			Х	
Organize BRD – EPD joint strategic review and planning on RE activities		Х		
Regional Public-Private Dialogue on quick deployment of Renewable Energy in EAC (Discussing opportunities, challenges, policies, taxes and standards)	Х			
Organize a RE learning Visit to Nepal and Bangladesh (key stakeholders of BRD-PSPE)	Х			
Study visit for technology transfer and business matchmaking for EPD members (with focus on productive use of solar)	Х			
Regional public-private dialogue on quick deployment of renewable energy in EAC	Х			

3.4.3 Analysis of progress made

Learning visit to Bangladesh and NEPAL

The objective of the exposure was to inspect successful renewable energy programs being implemented internationally and apply those lessons while implementing the REF project. 10 participants comprising of REF team members and representatives from MININFRA, EDCL and EPD conducted a field inspection visit to understand how the RE systems and energy-based SMEs have changed the livelihood of rural people. They also discussed with the private sector, financial institutions and policy makers on the RE policies being implemented in Bangladesh and Nepal. One of the major recommendations of the team is to advocate for a Renewable Energy subsidy policy and awareness for the benefits of rooftop solar power projects for offices and major building in Kigali starting with BRD building.

³ A: The activities are ahead of schedule

B The activities are on schedule

C The activities are delayed, corrective measures are required.

D The activities are seriously delayed (more than 6 months). Substantial corrective measures are required.

Priority for Q3 of 2019 are as follows:

- > Complete the procurement of the firm for the detailed feasibility studies of mini-grid projects
- Awareness campaign in the remaining Southern and Eastern province
- Promotion of the productive use of renewable energy for both men and women
- Support the implementation of REF through lending to SACCOs, Off-grid Solar Companies and Mini grid developers
- Build the BRD capacity in the RE project analysis and management \geq

The regional public-private dialogue on quick deployment of renewable energy in EAC

This dialogue was jointly organized by the east African Centre of excellence, the Rwandan Ministry of infrastructure and the Rwandan Energy Private Developers (EPD). The dialogue come up with the following recommendations that are likely to advance access to electricity in EAC Partner States if implemented:

- > The Dialogue recommended that the regional and national renewable policies and legislations should provide tax incentives to can stimulate investments in renewable energy policy. In this case, the participants called upon a harmonized interpretation of the EAC Customs Management Act (CMA). It was noted that certain items may be exempted under CMA in one EAC Partner State but subject to taxation in another.
- > EAC Partner States to agree on harmonized interpretation of the Customs Management Act. Furthermore, EAC and the Partner States should consider providing additional tax incentives to accelerate investments in renewable energy. Increase of fiscal incentives to the private mini grids can help make tariffs affordable, hence improving profitability of productive uses of energy.
- EAC Partner States to harmonized regulations related to renewable energy, including, but not limited to, (i) Solar photovoltaic regulations (ii) Solar heating regulations (iii) Energy management regulations (iv) Appliance energy performance and labelling regulations (vi) mini grids regulations, etc.

Hands-on coaching support to developers for mini-grid feasibility studies

On the 5th October 2018, BRD and EPD organized a half-day session to assess capacity of EPD members for them to effectively access the Renewable Energy Funds managed by BRD. The main theme was "Unlocking Renewable Energy Funds (REF) for RE companies". At the end of the session, it was clear that the most important capacity challenge that hinders the private sector participation in the generation and distribution of electricity from renewable sources is the feasibility study mainly for three reasons:

- ✓ Renewable energy companies do not have qualified own resources to conduct the detailed feasibility studies (DFS)
- \checkmark Outsourcing experts to conduct feasibility studies is expensive and involves possible sunk cost when the proposed business plans is not financed
- ✓ Skills gap in the local design offices.

While the procurement of international firm to conduct the hands-on coaching started earlier in January 2019, the process was delayed for 3 months when the PSPE project team wanted first to get assurance from EDCL about the availability of off grid sites for detailed feasibility. Eventually, EDCL submitted to PSPE project a list of 1827 sites from which developers will select 50 potential sites to undergo the detailed feasibility studies. The PSPE team also held several discussions with EPD mini-grid sub sector to ensure they are ready to make the feasibility study supported by PSPE and this can lead to its success. Finally the RFP has been issued to 8 shortlisted firms and it is expected that the contract with the successful bidders will be signed in October 2019. PSPE-Annual report 2018/2019

3.5 Transversal Themes

3.5.1 Gender

2.6.1.1 According to you and your implementing partner what are the main gender gaps in the areas / outcomes covered by your intervention?

Few females entrepreneurs in the energy sectors.

3.5.1.2 How does your interventions take gender into account?

- Does your project have a gender component? No

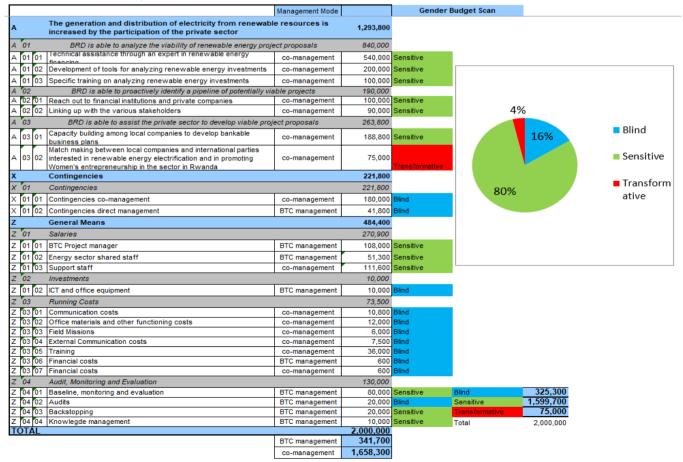
- Do you work with gender-sensitive indicators and do you collect sex-disaggregated data's? **YES** Some indicators related to people disaggregated into males and females

- Is your implementing partner pursuing any specific Gender policy, gender strategy, gender action plan? **YES**

- Are your beneficiaries sensitized about gender discrimination? YES

3.5.1.3 Has your intervention been through a Gender budget scan or through any other method to mainstream gender?

During the baseline exercise, the Enabel tool 'Gender Budget Scan' has been applied in an adapted version to assess gender sensitivity of the project budget in terms of how the budget lines have been thought taking into account the gender parameters. Most of the budget lines were gender sensitive. Below is the summary.



If no, do you consider your intervention as 'gender blind'⁴? **No** - If yes,

- What where the main gender transformative actions⁵ of your project? Support the promotion of productive use of RE by men and women entrepreneurs
- What where the main gender sensitive actions⁶ of your project
- ✓ Procurement of the Renewable Energy Financing Expert
- ✓ BRD Capacity Needs Analysis and capacity building plan
- ✓ REF and PSPE joint Planning and Review meetings
- ✓ Training of BRD staff in Renewable Energy Project analysis and management
- ✓ provincial awareness campaign to stimulate effective demand for SHS and lending from REF
- ✓ Study visit in Bangladesh, Nepal and India
- Do you liaise with or support a gender body⁷ in Rwanda? **No**
- 3.5.1.4 Did your intervention organized any awareness activity for the staff, implementing partner? (Workshops, trainings, etc.) Yes Safer Rwanda
- 3.5.1.5 Do you collaborate, are you in contact with a gender-friendly actor in Rwanda? No

3.5.1.6 What are your challenges to take gender into consideration in your intervention?

The private sector Participation in energy is still low and this applies to both males and females with too low share of females entrepreneurs in the energy sector.

3.5.1.7 What are your proposal to address those challenges?

Because one of the root cause of the low share of females entrepreneurs is thought to be technical capacity gap, the PSPE is considering to ensure females are part of all the capacity building activities that will be organized and or financed by PSPE.

This does not imply that they are 'gender neutral' after conducting

⁴ Gender blind activities do not do not take differences between women and men into account, nor do they address gender relations.

⁵ A gender transformative action has an impact or transform the gender roles and the division of labour in a social group. If focuses on changes and often take into account empowerment processes.

⁶ A gender sensitive action is taking into account the differences between women and men but do not envisage changes in gender roles/division of labour.

⁷ The gender body is made of official institutions promoting gender equality in the country (GMO, MIGEPROF, National Women Council, etc.) PSPE-Annual report 2018/2019

2.7. Risk management

Risks	Period of identif icatio n	Risk categ ory	Proba bility	Potenti al Impact	Risk level	Mitigation measures	Resp.	Deadline	Progress	Status
Difficulties in data collection (gender aggregated) : number of households to acquire an off-grid system, consumption, tier levels,and in verification of technical and financial data	Formu lation	OPS	Low	Low	low	Put on watch list and monitor how it evolves	PSPE Manager	Continuo us	Same magnitude	Open
REG does not share short, medium, and long-term grid extension plans with private project developers	Imple menta tion	Dev	Low	Low	low	Formalize collaboration in data sharing	PSPE and REF Manager	30/04/19	Official letters between BRD and EDCL June 2019	Open
Low income of rural households leads to a small market for renewable energy equipment or services	Imple menta tion	Dev	Medi um	High	High	Collaboration with other initiatives for subsidies to improve business case	REF Manager	31/12/19	REG is reflecting on the subsidy mechanisms to be put in place especially for the low income households	Open
Absence of viable commercial and business activities in non- grid areas leads to small market for renewable energy equipment or services	Imple menta tion	Dev	High	Mediu m	High	PSPE to provide hands on support the feasibility studies of priority sites	PSPE Manager	30/11/20 19	Tender to procure the consulting firm at the evaluation stage	Open
BRD Staff may not available for PSPE	Imple menta tion	OPS	Low	Low	Low	Put on watch list and monitor how it evolves	PSPE Manager	Continuo us	Same magnitude	Open

Risks	Period of identif icatio n	Risk categ ory	Proba bility	Potenti al Impact	Risk level	Mitigation measures	Resp.	Deadline	Progress	Status
Lack of interest from private firms to take credit from local banks at high interest rates	Formu lation	Dev	Low	High	Med ium	Awareness raising • Providing competitive rates and loans in local currency	TA Financing	31/05/20	Ongoing	Open
Capacity building of BRD staff not effective	Imple menta tion	OPS	Medi um	Mediu m	Med ium	Conduct Capacity Needs Assessment before training	PSPE Manager	31/05/20	Ongoing	Open
Priority shift on on-grid solutions	Formu lation	Dev	Low	High	Med ium	Watch the likelihood of the risk if it increases, develops the contextual solutions.	PSPE Manager	Continuo us	Same magnitude	Open
BRD drops renewable energy due to small market size	Formu lation	Dev	Low	Low	low	Put on watch list and monitor how it evolves	PSPE Manager	Continuo us	Same magnitude	Formu lation
Continued subsidies for on- grid electrification, and for electricity supply make off-grid solutions unavailable or undesirable	Formu lation	Dev	Low	High	Med ium	Put prominently on the agenda of ESWG	PSPE Manager	Continuo us	Ongoing	Open
Use of funds for unintended purpose	Formu lation	OPS	Low	Low	low	Financial controlling measures, internal and external audits are already in place	RAFI	Continuo us	Ongoing	Open
						Intervention activities are continuously under M&E	PSPE Officer	Continuo us	Ongoing	Open
						Control by Steering Committee add quality assurance	PSPE manager	Continuo us	Ongoing	Open
Policy and structural reforms affecting the intervention negatively	Formu lation	Dev	Low	High	Med ium	Take part to policy discussion during ESWG	REF Manager	Continuo us	SPE and REF are regularly invited to the energy technical and	Open

Risks	Period of identif icatio n	Risk categ ory	Proba bility	Potenti al Impact	Risk level	Mitigation measures	Resp.	Deadline	Progress	Status
									sector working groups	
Uncertainty regarding the transfer of assets and compensation to mini-grid IPPs when the grid arrives	Formu lation	Dev	Low	High	Med ium	Engage RURA to clarify and enact guidelines to regulate the process of transition from off-grid (mini-grid) to on-grid operation.	REF Manager	Continuo us	Ongoing	Open
Delay in the project implementation both REF and PSPE due to delayed recruitment, weak planning, weak coordination amongst the three key stakeholders (Enabel, WB and BRD)	Imple menta tion	OPS	Medi um	Mediu m	Med ium	Joint period review of the implementation of action plan of PSPE and REF	PSPE Officer	Continuo us	Ongoing	Open

4 Steering and Learning

4.1 Strategic re-orientations

1. Support the mini-grid developers on detailed feasibility studies

The success of the PSPE implementation depends on the success implementation of REF and other energy financed by BRD. On their turns, Energy projects in BRD including REF depend on the viability of renewable energy projects formulated by developers and submitted to BRD for financing.

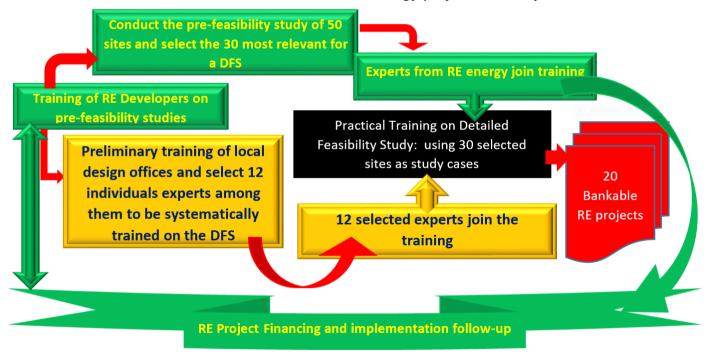
On the 5th October 2018, BRD and EPD organized a half-day session to assess capacity of EPD members for them to effectively access the Renewable Energy Funds managed by BRD. At the end of the session, it was clear that the most important capacity challenge that hinders the private sector participation in the generation and distribution of electricity from renewable sources is the feasibility study mainly for three reasons:

- ✓ Renewable energy companies do not have qualified own resources to conduct the detailed feasibility studies (DFS)
- ✓ Outsourcing experts to conduct feasibility studies is expensive and involves possible sunk cost when the proposed business plans are not financed
- ✓ Skills gap in the local design offices.

To overcome the capacity gap in the feasibility study, a more sustainable structural approach is required, not only to tackle the capacity of developers, but also the capacity of local design offices as well as the issue of sunk cost. The experience has shown that theoretical training alone leaves trainees without practical skills and knowledge.

It is for this reason that PSPE is on the process of procuring experienced international firm to provide the hands-on coaching to mini-grid developers for the DFS as summarized in the below framework.

Framework for a sustainable CB for the renewable Energy project feasibility studies



4.2 Project implementation re-orientations

Project structure and implementation modalities

The PSPE project implementation as designed during the formulation has not changed. The PSPE Steering Committee is the highest level of decision in the intervention. It is in charge of the strategic steering of the intervention. The main responsibilities of the PSPE SC are:

- ✓ Putting in place and supervise the management structures of the intervention;
- ✓ Defining the intervention strategy and ensuring its alignment on the overall Rwandan strategy (strategic planning, annual planning and budgeting),
- ✓ Assessing the intervention's progress in attaining the development results (strategic quality assurance and control) and assuring sustainability
- Reviewing and approving the intervention plans and reports (annual results report; mid-term review and final evaluation reports).
- Managing strategic changes, intermediate results changes, changes on implementation modalities as well as the adaptation of the intervention organization and budget;
- ✓ Modifying the content of TFF when necessary (except the General and Specific objectives) and take any strategic decision required to ensure the success of the intervention.
- \checkmark Solving problems that cannot be solved at the operational level,
- ✓ Enhancing harmonization among donors
- ✓ Ensuring the appropriate handover during the closure of the intervention and approving the final report.

The PSPE steering committee is chaired by the Permanent Secretary of MININFRA. Other members are:

- ✓ Resident representative of Enabel (co-chair)
- ✓ A representative of BRD (member)
- ✓ A representative of MINECOFIN (member)

At technical level, the ToR of the Renewable Energy Financing Expert have been adjusted to incorporate targets sets in the baseline. After discussions with BRD procurement office and Enabel, the PSPE management proposed a cost plus incentive contract. This is a type of win-win service contract for very complex assignment which provides, in addition to a time-based fees, a consultant is entitled to, an incentive payment upon achievement of the client target for which the consultants cannot have control but can highly contribute to. After six months of implementation of this contract we have learned that it suits the nature of the assignment and we have observed considerable efforts by the consultants to support the achievement of PSPE targets.

4.3 Recommendations

		Actor	Deadline
1.	Maintain close collaboration between REF and PSPE project	REF and PSPE Manager	Continuous
2.	Put in place clear and user-friendly mechanisms to track performance of trained BRD's staff	REF and PSPE Manager	December 2019
3.	Speed up the procurement of the international firm to provide hands-on coaching to mini-grid developers for DFS	I K K I V V V V V V V V V V V V V V V V	October 2019
4.	Support MININFRA in the development of the RE subsidy policy to accelerate implementation of REF	REF and PSPE Manager	December 2019

4.4 Lessons Learned

Les	sons learned	Target audience
1)	Policy level document is always required to implement a nationwide initiative especially when it requires involvement of different stakeholders from different institutions. For instance in Nepal, the subsidy policy contributed to the success in the off-grid sub-sector and the same policy in Rwanda is highly needed for REF successful implementation and for the sustainability of achievements.	BRD, MININFRA, REG
2)	Early dialogue with partner institutions and their ownership of capacity needs assessment increases project relevance and successful implementation of activities	
3)	Cost plus incentive contracts are good alternatives when time-based alone or deliverables based contracts seem to be weak especially for complex assignment	BRD and Enabel

5.1 Quality criteria

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

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

-	,	nent : RELEVANCE: total	A	B	C	D				
sco			Х							
1.1	1.1 What is the present level of relevance of the intervention?									
Х	А	Clearly still embedded in na effectiveness commitments		-						
	в	Still fits well in national poli explicit), reasonably compa target group's needs.	-	.		-				
	С	Some issues regarding cons aid effectiveness or relevan	•	ational polici	es and Belgiar	n strategy,				
	D	Contradictions with nationa commitments; relevance to	•	0	011	,				
1.2	As p	resently designed, is the inte	rvention logic	still holding tr	ue?					
x	А	Clear and well-structured ir logic of objectives; adequat and managed; exit strategy	e indicators; I	Risks and Assu						
	В	Adequate intervention logic although it might need some improvements regarding hierarchy of objectives, indicators, Risk and Assumptions.								
	С	Problems with intervention logic may affect performance of intervention and capacity to monitor and evaluate progress; improvements necessary.								
	D	Intervention logic is faulty a have a chance of success.	and requires n	najor revision	for the interv	ention to				

2. 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

Ass	sessm	nent : EFFICIENCY : total	А	В	С	D	
sco	ore		Х				
2.1	How	v well are inputs (financial, H	R, goods & equ	uipment) man	aged?		
Х	А	All inputs are available on t	ime and withi	n budget.			
	B Most inputs are available in reasonable time and do not require substantial budget adjustments. However there is room for improvement.						

	С	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.
2.2	How	well is the implementation of activities managed?
Х	Α	Activities implemented on schedule
	В	Most activities are on schedule. Delays exist, but do not harm the delivery of outputs
	С	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.
2.3	How	well are outputs achieved?
	А	All outputs have been and most likely will be delivered as scheduled with good quality contributing to outcomes as planned.
Х	В	Output delivery is and will most likely be according to plan, but there is room for improvement in terms of quality, coverage and timing.
	С	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.

	3. EFFECTIVENESS TO DATE: Degree to which the outcome (Specific Objective) is achieved as planned at the end of year N								
	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								
Ass	sessn	nent EFFECTIVENESS : total	А	В	С	D			
SCC	ore			Х					
3.1	As p	resently implemented what i	s the likelihoo	d of the outco	me to be achi	eved?			
	А	Full achievement of the out Negative effects (if any) hav		•	uality and cov	erage.			
Х	в	Outcome will be achieved v not caused much harm.			tive effects (if	any) have			
	с	Outcome will be achieved of effects to which manageme have to be taken to improve	ent was not ab	le to fully ada	pt. Corrective	-			
	D	The intervention will not ac measures are taken.	hieve its outc	ome unless m	ajor, fundame	ental			
3.2	Are	activities and outputs adapte	ed (when need	ed), in order t	o achieve the	outcome?			
	А	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.							
х	В	The intervention is relativel external conditions in order passive.			-				

The intervention has not entirely succeeded in adapting its strategies to

- C 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.
 - The intervention has failed to respond to changing external conditions, risks were insufficiently managed. Major changes are needed to attain the outcome.

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			А	В	C D						
SUSTAINABILITY : total score			Х								
4.1 Financial/economic viability?											
	А	Financial/economic sustainability is potentially very good: costs for services and									
	^	maintenance are covered or affordable; external factors will not change that.									
х	В	Financial/economic sustainability is likely to be good, but problems might arise									
		namely from changing external economic factors.									
	С	Problems need to be addressed regarding financial sustainability either in terms									
		of institutional or target groups costs or changing economic context.									
	Financial/economic sustainability is very questionable unless major chang										
		made.									
		at is the level of ownership o	t the intervent	ion by target	groups and w	Il it continue					
аπ	erth	e end of external support?				1 • 1 1					
v	Δ.	The steering committee and other relevant local structures are strongly involved									
Х	A	in all stages of implementation and are committed to continue producing and									
		using results.	n a good part	on the steer	ing committe	a and other					
	В	Implementation is based in			-						
	D	relevant local structures, which are also somewhat involved in decision-making. Likeliness of sustainability is good, but there is room for improvement.									
			- ·								
	С	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.									
		The intervention depends completely on ad-hoc structures with no prospect									
	D	sustainability. Fundamental									
4.3	8 Wha	at is the level of policy supp	-								
int	erver	ntion and policy level?									
Х	А	Policy and institutions have	ve been high	ly supportive	of intervent	ion and will					
~		continue to be so.									
	В	Policy and policy enforcing	g institutions	have been ge	enerally supp	ortive, or at					
	D	least have not hindered the intervention, and are likely to continue to be so.									
	С	Intervention sustainability	is limited du	e to lack of p	policy suppor	t. Corrective					
	5	measures are needed.									
	D	Policies have been and li	•			ntervention.					
	Fundamental changes needed to make intervention sustainable.										
	SPE Appual report 2019/2010										

D

4.4	4.4 How well is the intervention contributing to institutional and management capacity?					
		Intervention is embedded in institutional structures and has contributed to				
х	Α	improve the institutional and management capacity (even if this is not an				
		explicit goal).				
		Intervention management is well embedded in institutional structures and has				
	В	somewhat contributed to capacity building. Additional expertise might be				
		required. Improvements in order to guarantee sustainability are possible.				
		Intervention relies too much on ad-hoc structures instead of institutions;				
	С	capacity building has not been sufficient to fully ensure sustainability. Corrective				
		measures are needed.				
		Intervention is relying on ad hoc and capacity transfer to existing institutions,				
	D	which could guarantee sustainability, is unlikely unless fundamental changes are				
		undertaken.				

5.2 Decisions taken by the Steering Committee and follow up

NO	Decision	Date	Deadlin e	Responsi ble	Status of the decision	Action	R b
1	The project steering committee (PSC) meeting approves the PSPE project start-up plan. The start-up period covers the period from 15 th March to 14 th September 2018. The project management is urged to do all the necessary actions to respect deadlines set in the plan for a proper start-up, with a common understanding from key project stakeholders.	13-06- 18	10-09- 18	Intervent ion Manage r	Implement ed	Implement the plan	P
2	 The PSC approves the roadmap for the baseline study. The team to conduct the baseline study is composed of the following: 1. Hector Mutijima, from BRD 2. Innocent Mitali, from BRD 3. Gratien Gasaba, from Enabel 4. Ellen Van Himbergen, from Enabel 5. Peace Kalisa , from MININFRA 6. Tom Butera from MINECOFIN 	13-06- 18	10-09- 18	Intervent ion Manage r	Implement ed	Prepare the baseline	P
3	Approval of the PSPE Baseline report and PIM	05-10- 18	Immedi ately	IMU	Implement ed	File the report and monitor indicator	P te
4	The budget change was not approved. However it was agreed that the justification for this budget change be discussed in the next meeting when the Resident Representative of ENABEL returns.	05-10- 18	Immedi ately	IMU	Implement ed	NA	N

5.3 MoRe Results at a glance

Logical framework's results or indicators modified in last 12 months?	
Baseline Report registered on PIT?	YES
Planning MTR (registration of report)	Planned in 2020
Planning ETR (registration of report)	foreseen in 2021
Backstopping missions since 01/07/2018	None

5.4 Expenses and commitments

		Budget	Expenses June 2019	Firm commitments	non-firm commitments	Total commitment s	Total expenses and Commitments	Balance to be committed
Result 1	BRD is able to analyze the viability of renewable energy project proposals	840.000,00	54.425,41	206.126,52	87.500,00	293.626,52	348.051,93	491.948,07
A0101	TA through an expert in RE financing	540.000,00	16.195,78	184.619,52	22.000,00	206.619,52	222.815,30	317.184,70
A0102	Development of Tools for analysing RE investments	200.000,00	0,00	0,00	31.000,00	31.000,00	31.000,00	169.000,00
A0103	Specific training on onalyzing RE investment	100.000,00	38.229,63	21.507,00	34.500,00	56.007,00	94.236,63	5.763,37
	BRD Capacity to assist the private sector to	450.000.00		12 0 50 00	F 44 000 00	504.450.00		450 765 05
Result 2	develop them bankable projects	453.800,00	20.097,95	43.268,00	541.200,00	584.468,00	604.565,95	-150.765,95
	Reach out to financial institutions and private	100.000.00	0.00	0.00	F0 000 00	F0 000 00	F0 000 00	1 40 000 00
A0201	companies	190.000,00	0,00	0,00	50.000,00	50.000,00	50.000,00	140.000,00
A0202	Capacity building among local companies to develop bankable business plans	188.800,00	2.454,08	0,00	491.200,00	491.200,00	493.654,08	-304.854,08
A0203	Match making between local companies and international parties interested in renewable energy electrification and in promoting Women's	75.000,00	17.643,87	43.268,00	0,00	43.268,00	60.911,87	14.088,13
X010100	Contingency Cogestion	180.000,00				0,00	0,00	180.000,00
X010200	Contingency Regie	41.800,00				0,00	0,00	41.800,00
	General means	484.400,00	131.180,05	188.192,00	101.357,39	289.549,39	420.729,44	63.670,56
Z01	Wages and Salaries	270.900,00	114.544,06	188.192,00	0,00	188.192,00	302.736,06	-31.836,06
Z02	Investment	10.000,00	5.561,27	0,00	0,00	0,00	5.561,27	4.438,73
Z03	Running cost	73.500,00	2.432,11	0,00	0,00	0,00	2.432,11	71.067,89
Z04	Audit, monitoring, evaluation	130.000,00	8.642,61	0,00	101.357,39	101.357,39	110.000,00	20.000,00
	TOTAL	2.000.000,00	205.703,41	437.586,52	730.057,39	1.167.643,91	1.373.347,32	626.652,68