

Final report

Private Sector Participation in the Generation and Distribution of Electricity from Renewable Sources (PSPE)









Belgian development agency

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ACRONYMS

ACCA	Association of Chartered Certified Accountants		
AESG	Africa Energy Service Group	osc	Off-grid Solar Company
AF	Access to Finance	PAYG	Pay As You Go
BP	Business Plan	PFI	Partner Financial Institutions
BRD	Development Bank of Rwanda	PIM	Project Implementation Manual
CB	Commercial Banks	PIU	Project Implementation Unit
CCC	Clean Cooking Companies	PSC	Project Steering Committee
CMS	Credit Management System	PSPE	Private Sector Participation in the Generation and Distribution of Electricity
CPA	Certified Public Accountant	RAFI	Responsible for Administration and Finance
DFS	Detailed Feasibility Study	RBF	Result Based Financing
DOA	Deal Origination Agent	RE	Renewable Energy
DSI	Demand Side Intervention	REF	Renewable Energy Fund
EAC	East African Community	REG	Rwanda Energy Group
EDCL	Energy Development Corporation Limited	REPP	Renewable Energy Performance Platform
EnDev	Energizing Development	RES	Rural Electrification Strategy
EPD	Energy Private Developer	RFP	Request for proposal
ESSP	Energy Sector Strategic Plan	RURA	Rwanda Utilities Regulatory Agency
GoR	Government of Rwanda	SACCOs	Saving and Credit Cooperatives
нн	Household	SAS	Standalone Systems
HR	Human Resources	SC	Steering Committee
ICT	Information and Communication Technology	SDG	Sustainable Development Goals
IMU	Intervention Management Unit	SHS	Solar Home System
IT	Information Technology	SME	Small and Medium Enterprise
M&E	Monitoring and Evaluation	SPIU	Single Project Implementation Unit
MFI	Micro Finance Institutions	SSI	Supply Side Intervention
MGD	Mini-Grid Developer	TA	Technical Assistant
MHP	Micro Hydro Power Plant	TFF	Technical and Financial File
MINALOC	Ministry of local government	ToR	Terms of Reference
MINECOFIN	Ministry of Economic Planning and Finance	TTA	TecnoAmbiental
MININFRA	Ministry of Infrastructure	TV	Television
MTR	Mid-Term Review	USS	United States of America Dollar
MW	Megawatt	VAT	Value Added Tax
N/A	Not Applicable	WB	World Bank
NEP	National Electrification Plan	WD	Working Day
NST1	National Strategy for Transformation	WIP	Work in Progress

INTERVENTION FORM

Intervention name	Private Participation in the Generation and Distribution of Electricity from Renewable Sources (PSPE)
Intervention Code	RWA1509611
Location	Kigali
Budget	€ 2.000,000
Partner Institution	Development Bank of Rwanda
Date intervention kick off /Steering committee approving Baseline report	5 th October 2018
End date Specific Agreement	14 th March 2023
Target groups	The beneficiaries of the intervention are: The Development Bank of Rwanda (BRD) Private companies (project developers) providing electrification services (mini-grids, OSCs) or disseminating renewable energy equipment, benefitting from access to finance, training and project development support and networking with other (inter)national companies. EPD members are 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 can 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 analyse 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.
Total budget of the intervention	€ 2.000.000
Period covered by the report	5 th October 2018- 31 st December 2022

Impact is a synonym for global objective, Outcome is a synonym for specific objective output is a synonym for result

BRD global appreciation of the intervention:

The Private Sector Participation in the Generation and Distribution of Electricity from Renewable Sources (PSPE) was initiated to support the private sector investment in the realization of the Government of Rwanda commitment to achieve the country universal electricity access by end 2024. Despite several challenges, commendable performances have been achieved by PSPE project across all the output indicators.

The PSPE project key results have been:

- 20 BRD staff trained in renewable energy financing through hands-on coaching, equipped with tools and templates developed through the PSPE project. This includes PSPE sponsor to 8 BRD staff to become Certified Experts in Climate and Renewable Energy Finance, a 6-month online course offered by Frankfurt School of Management and Finance.
- ✓ 68 agreements signed with SACCOs, commercial banks and microfinance institutions under the Renewable Energy Project (REF) financed by the World Bank. The cumulative value of the signed agreements is US\$ 5.07 million.
- ✓ 23 participation agreements signed with off-grid solar companies (OSC) in the REF project. The cumulative value of signed participation agreements is US\$ 23.02 million.
- 22 tools and templates (appraisal reports, business plans, financial models among others) developed, adopted, and are used by BRD for renewable energy project analysis. Those tools and templates will remain within BRD to be used in the long run beyond PSPE and REF projects.
- ✓ PSPE financed an exposure visit to Bangladesh and Nepal on Renewable Energy Finance. The learnings from the visit were instrumental in the introduction the REF Result-Based Financing Subsidy (REF Window 5), the most performing REF Window.
- PSPE contributed to the design and implementation of REF Window 5 Results-based Financing subsidy, including development of its Operations Manual.
- ✓ The project financed the Deal Origination Agents (DOA) initiative that led to over 50,000 new off-grid connections. 600 DOAs were identified, trained and supported by PSPE across the country.
- ✓ PSPE contributed Frw 128.23 million to CanaChallenge initiative to connect 8,548 Ubudehe 1 households (the poorest families) free of charge.
- PSPE financed a consultancy to support small local solar companies to build their capacities and readiness to access REF funds. As a result, 15 small local off-grid Solar companies accessed REF Window 5 results-based subsidy financing.
- ✓ PSPE financed a consultancy to support Minigrid developers to develop feasibility studies that are viable. Out of 20 Minigrid sites identified by the consultant, 12 Minigrid sites were deemed viable provided for the availability of a 70% subsidy from the Government of Rwanda or other donors.

PSPE technical assistance to BRD, PFIs and the private sector has been a game changer in the sector financing at a large and essentially in the development of the REF project pipeline.

Despite the effort invested in PSPE Project, affordability constraint from the households and SACCOs lending capacity for solar home system decelerated the pace of implementation of PSPE and REF projects. In order to address the aforementioned problems, the REF Results-Based Financing (RBF) subsidy window (Window 5) was created, with an initial envelop of US\$ 15 million. REF Window 5 started its operation in October 2020. To align REF and PSPE Projects targets, PSPE Project Technical and Financial File (TFF) were revised to include additional indicators for Window 5.



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Thereafter, PSPE project directly supported BRD REF project to achieve 54,030 solar home systems connections within 20 months (from March 2021 to December 2022) and this contributed to the disbursement of a REF subsidy amounts equivalent to 4,880,177,730Frw. In addition, 375,351,070 Frw of loans were disbursed by 48 SACCOs (out of 68 SACCOs that signed agreements with BRD) following the introduction of Deal Origination Agents (DOA) program financed by PSPE project.

PSPE project achievement sustainability is expected to be very good at the level of BRD and the private sector. BRD core team has been equipped with the right tools and is currently able to properly execute the organization mandate in the renewable energy sector, especially for the lending, risk analysis and on the understanding of technical aspects of energy portfolio financing. On the private sector side, the supported local energy companies are now operational and established players into the Rwandan renewable energy market.

Score your global appreciation of the intervention	on²:
Very satisfactory	Very satisfactory
National execution official ³	Enabel execution official ⁴
Liliane IGIHOZO UWERA BRD Head of SPIU	Jack TV TUBA Advisor to Resident Representative-Enabel

³ Very satisfactory - Satisfactory - Non satisfactory, in spite of some positive elements - Non satisfactory

Name and Signature
 Name and Signature

PART I: RESULTS ACHIEVED AND LESSONS LEARNED

ASSESSING THE INTERVENTION STRATEGY

1.1 Context

The Rwanda Energy Sector has developed an Energy Sector Strategic Plan (ESSP) 2018-2024 and aligned it with other strategic documents such as NST1, SDGs, vision 2020 and vision 2050. The strategy outlines the implementation plan to achieve national targets in the energy sector to boost electricity access to 100% of the population with 52% on grid and 48% off-grid by 2024. The government has selected the off-grid sector as a means of increasing access quickly and cost effectively.

To achieve the above goal, in 2017, the Government of Rwanda established the Renewable Energy Fund (REF), to accelerate the adoption of off-grid electricity access in Rwanda. At its initiation, the Renewable Energy Fund was meant to be implemented through 4 windows:

- Window 1: on-lending through SACCOs to households and micro-enterprises
- Window 2: on-lending through banks (commercial and microfinance) to households and small and medium enterprises (SMEs)
- Window 3: direct financing of mini-grid developers
- Window 4: direct financing of locally registered off-grid solar companies supporting Tier 1 or higher solar systems

In 2020, a Result-Based Financing (RBF) subsidy scheme of US\$ 30 million was initiated by the GoR and the World Bank, to be implemented as Window 5 under the existing REF program.

The overall responsibility of the REF project implementation resides with the BRD Chief Executive Officer supported by the SPIU Coordinator, the Energy Portfolio Manager, and the REF Project Coordinator.

A capacity gap analysis carried out by the World Bank in November 2016 revealed that BRD needs additional capacity to carry out M&E for the 4 renewable energy financing windows (SACCOs, banks, mini-grid developers and locally registered off-grid solar companies), as well as to increase its risk assessment capacity, and its capacity to involve SACCOs and improve their operations. To close this gap and support the implementation of REF and other energy projects at the Development Bank of Rwanda, the PSPE-Private Sector Participation in the Generation and Distribution of Electricity from Renewable Source (RWA1509611) project was initiated. The main purpose of PSPE is to increase the generation and distribution of electricity from renewable resources by ensuring the participation of the private sector supported by the intervention.

Rwanda is a country where, as part of the economic development agenda, change is obvious and quick. For instance, in 2021, MININFRA and REG introduced major revision of the NEP which changes proportions between grid electrification and off-grid electrification. According to the revised NEP, 89.9% of villages, i.e., 13,314 villages out of 14,816 villages fall in on grid zones, whereas 10.1% of all villages are in the off-grid zones with 1,320 villages only eligible for standalone systems (SAS). This is a cutting stone change characterized by a decrease of households eligible for off-grid from 48% to 10.1%. This change in NEP is likely to negatively affect the off-grid market by decreasing number of sales by solar companies and lowering the disbursement of REF's credit line and subsidy funds.

The implementation of PSPE project is embedded in BRD system with co-management modality. However, this was mixed up with regie model which was aligned with Enabel management model. The project was implemented using a hybrid approach (co-management model and regie management model) with the alternation of predictive and agile components depending on the context and the nature of the work. For instance, to match with REF requirements at its beginning, PSPE in a proactive approach assessed the capacity needs for REF to analyze loan application for renewable energy projects. This led to various capacity building activities focusing on loan applications analysis. When it turned

out that most targeted households are not creditworthy, PSPE supported REF to identify other solutions which eventually led to the introduction of the subsidy which was established with the intention of solving the problem of low purchasing power of the households (REF window 5). At the same time, to accompany the implementation of subsidy window, especially the demand collection for window 1 financing, the PSPE project introduced the support to SACCOs-OSCs joint marketing of SHS through the services of Deal Origination agents (DOA). BRD also launched Cana Challenge in December 2021, a community fund raising initiatives to support Ubudehe1 households; in April 2022, PSPE contributed Frw 50 million (equivalent to €44,405) to the connect 3,333 households located in different off-grid zone areas. In order to further support BRD to meet its intended objective, PSPE project committed to contribute an additional EUR 67 690 (Frw 78.23 million) in December 2022 which are expected to connect 5 215 households in Cana Challenge. PSPE total contribution to Cana Challenge will be Frw 128.23 million to connect 8,548 households.

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 were later on managed by the community. Concerning the mini-grid subsector, the following mini-grid companies are the most active:

- Hobuka LTD;
- GESS LTD;
- Power Energy Developers LTD;
- Great Lakes Power LTD;
- MUNYAXECO LTD;

- Mesh Power LTD;
- ERE LTD;
- NESELTEC LTD;
- Serve and Smile LTD;
- Green Utility for Africa Group LTD

Several international companies selling SHS have already established businesses in Rwanda. Examples include companies such as ENGIE MOBISOL, IGNITE, BBOXX, One Acre Fund, 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 making the systems affordable in the Rwanda market demand. There are small scale local solar companies that are engaged in off-grid electrification especially the retail of solar home systems. They include the following:

- Glass LTD
- Innotech, Consulting Ltd
- Intertech Ltd
- Neseltec Ltd
- East Africa MG Group Ltd
- Serve and Smile ltd
- KOLMENA Group Ltd
- STOP Ltd
- Hello Renewables, Ltd
- MUNYAXECO Ltd

- Direct Sales Rwanda Ltd
- EROGEC Ltd
- Klean NRG Ltd
- M.K.C Trading Company Ltd
- GECO LTD
- Safer 1 LTD
- Glorious Development Group LTD
- SPOTICO ltd
- Dassy Enterprise LTD
- Elerai Global Services LTD

1.2 Important changes in intervention strategy

The PSPE project has been providing a technical assistance to BRD in order to build its capacity to analyze and manage renewable energy projects as part of the bank contribution to the universal electricity access target of the Government of Rwanda by the year 2024. While the PSPE's activities are limited to technical assistance, some of its indicators achievements do not directly depend on PSPE resources. For the achievement of its outcome PSPE relies on the efficiency and effectiveness of the REF implementation.

By project design, the theory of change was to remove barriers for private sector development to attract more private investment, thus increasing electricity access in rural areas. Clearly, being a technical assistance project, PSPE was expected to unleash a large amount of financing for the investment in the renewable energy projects through REF, as summarized in the below figure of the project theory of change.

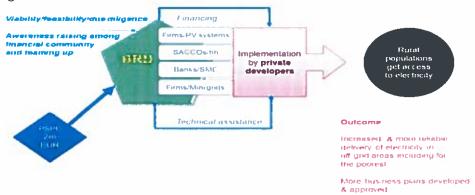


Figure 1: Project initial theory of change

The entry point for the PSPE project implementation is the BRD/REF in its four windows namely (1) On-lending through SACCOs to households and micro-enterprises, (2) On-lending through banks (commercial and microfinance) to households and small and medium enterprises (SMEs), (3) Direct financing of mini-grid developers and (4) Direct financing of locally registered off-grid solar companies supporting Tier 1 or higher solar systems.

During the baseline study the initial theory of change was adjusted to adequately reflect the project activities, factors, stakeholders, and assumptions. The main reason of the adjustment was to ensure the expected change, i.e project outcome or specific objective, is the centre of the theory of change. In addition, the adjusted theory of change (see figure 2) specifies the level of influence of the project team at each level of the result chain.

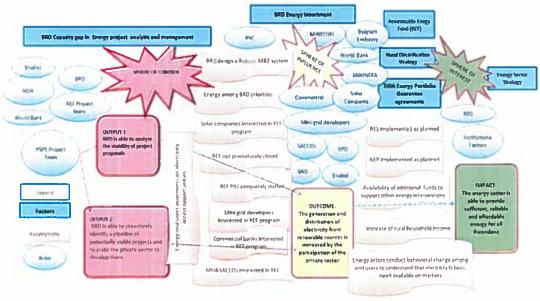


Figure 2: Adjusted PSPE theory of change

The project was implemented using a hybrid approach with predictive and agile components alternating depending on the context and the nature of the work. The PSPE required a high level of agility, not only to accommodate the rapidly changing nature of the Rwandan context, but also ensure beneficiary oriented implementation by which the voice of direct and indirect stakeholders are considered.

The primary and most important stakeholder of PSPE project is BRD/REF project. PSPE project has been predominantly supporting the implementation of REF in all its aspects including but not limited to the capacity of team members, tools and procedures to be used as well as the wider environment in which REF is implemented.

To achieve its objectives, the PSPE project structured its implementation approach around two levels (BRD capacity development and de-risking the four windows of REF) as illustrated in the figure 3.

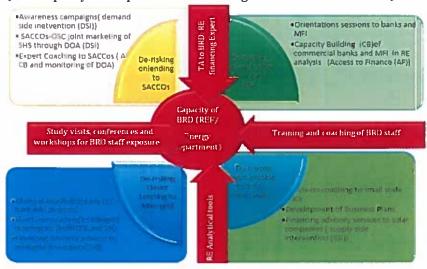


Figure 3: Project implementation approach

During the project implementation change requests have been introduced and approved. The section below describes major changes that affected the project scope, budget structure and timeline.

1.2.1 Support feasibility studies of mini-grid sites

Over the last four years of its implementation, the Renewable Energy Funds, which is a credit line funded by the WB and implemented by BRD, has received very few mini-grid proposals for funding and this is mainly due to the limited capacity of mini-grid developers to conduct sound detailed feasibility studies. To overcome this capacity gap in the feasibility study, a renewable energy de-risking approach has been implemented by PSPE, not only to tackle the capacity of developers, but also the capacity of local design offices as well as the issue of sunk cost. In addition to strengthen the capacity of developers and local consultants, the approach includes the development of bankable projects. It is in this framework that, in collaboration with the Energy Private Developers, BRD and EDCL, PSPE project supported 10 mini-grid developers to conduct the feasibility study of potential minigrid sites. Whereas, the PSPE project was designed solely as a technical assistance, a seed financing was decided to tackle challenges related to upfront expenses incurred by energy private companies when they conduct feasibility studies, the majority of which turn unviable after the study.

1.2.2 Support to SACCO-OGS joint marketing through Deal Origination Agents (DOA)

The revised TFF earmarked €353,946 to support the SACCO-Off-grid Solar Companies (OGS) joint marketing through DOA). The main objective was to increase the utilization of REF Window 1 (onlending to SACCOs) and window 4 (direct lending to solar companies) to accelerate the electricity access by poor rural households through participation of Solar companies. Before the DOA initiative was introduced, in average a SACCO took more than two months to provide loans to connect 6 households. Hence, according to Quarter 4 report of REF approved by World Bank in December 2020, from 2017 to December 2020, REF has managed to connect only 621 Households with solar home system. This pace was very low compared to overall target of making 445,500 connections by September 2023. This

achievement was 0.13%. Therefore, with the introduction of DOA and REF Window 5 Result based financing subsidy, within the first six months (from March to August 2021), DOA program has connected 4,317 households with solar home system. That means the average number of households connected by SACCOs per month was 719.

The core target of DOA initiative is to contribute to the government of Rwanda goals of universal access to electricity by 2024. In the first 6 months of DOA's implementation, deal origination agents provided services that contributed to improved performance of SACCOs and Solar companies. Not only did the agents increased awareness of rural households about the off-grid solutions, but they also increased the SACCOs' overall performance. From February 2022 to December 2022, DOAs have supported the installation of 54,034. That means that PPSE has achieved 90% of the initial target, which was equivalent to 60,000 connections by 31st December 2022.

1.2.3 Alternating focus on REF window 2 and window 4

At the kick-off the REF project implementation, window 4 was frozen in favor of window 1 and window 2. The main reason was to avoid competition between BRD and commercial banks for the same customer (off-grid solar companies) and same product (OSCs). This is helped SACCOs to position themselves as relevant actors in the off-grid sector financing.

However, during the first two years of implementation, only some SACCOs have been able to utilize funds received from REF to connect households with SHSs. It was realized that no commercial bank nor microfinance institution (MFI's) has provided loans to solar companies or individual households. The commercial banks and MFI's poor performance was attributed to two factors. On one hand, commercial banks perceived high risk in the off-grid market, and on the other hand, they had limited experience and understanding of off-grid sector financing. To avoid further delay, in the REF project implementation, BRD and WB decided to unfreeze window 4, hoping that the move would accelerate disbursement and utilization rates.

When the REF window was unfrozen, small scale solar companies informed PSPE that they were facing technical challenges mostly due to limited capacity to develop bankable business plans. Thus, PSPE agree to support small scale solar companies to strengthen their capacities through in-person support for their business plan preparation, risk assessment training, business counseling and other technical support. The PSPE support to the small-scale solar companies was an attempt to align with the REF strategic orientation of focusing on window 4. The rationale was that once the capacity of these companies is strengthened, they would be able to provide off-grid service in Rwandan market and participate in REF implementation through window 4.

The REF focus on window 4 (direct lending to off-grid solar companies) lasted only one year from December 2019 to December 2020, when BRD decided again to reprioritize window 2 (On-lending through banks - commercial and microfinance) to households and small and medium enterprises (SMEs). The reason for this change was twofold: (1) give to commercial banks the opportunity to engage in renewable energy financing and (2) BRD, being a development bank, supports the growth of commercial banks rather than creating competition with them. It was assumed that the engagement of other financial institutions would contribute toward sustainability of the off-grid market. As an enabling action, BRD revised the window 2 and window 4 pricing which resulted in window 2 becoming cheaper than window 4. With this change, PSPE embarked on providing assistance to commercial banks aiming to improve their understanding of the off-grid sector financing. To add on that, a technical committee to support the implementation of REF window 2 was put in place by BRD management and key PSPE staff were appointed committee members.

Whereas all applications submitted by solar companies to BRD were transferred to commercial banks, it turned out that some of these applications were not given due priority and were called back to BRD, and this was made window two to be inactive.

1.2.4 Supporting the BRD Cana Challenge

In December 2021, BRD launched a fundraising campaign called Cana Challenge with the aim of initially connecting 10,000 Ubudehe 1 families at no cost by the households to tackle the affordability challenges they were still facing. The households of Ubudehe 1 were given a REF subsidy equivalent to Frw 100,000, and the extra amount equivalent to Frw 15,000 for each solar kit was covered by the funds mobilized by BRD from different partners. As an entity which was given the mandate to increase the rate of electricity in off-grid zone, PSPE has raised the funds equivalent to Frw 50,000,000 (equivalent to C44,405) which was utilized to make 3,333 connections to the households who are embedded in Ubudehe category 1. The steering committee further decided the remaining balance(uncommitted) of the project will be transferred to Cana challenge that support connecting poor families.

1.2.5 Extension of the duration of the specific agreement and project implementation

The need for aligning PSPE activities and duration with REF requirements was a reality, during the PSPE project midterm review, conducted in October-November 2020, recommended to extend the project duration to reflect Covid-19 related delays, and align more REF and PSPE project implementation period, meet request from the private sector to continue the ongoing support to finalize pipeline activities, and increase sustainability of the project achievements.

In their meeting held on 10th April 2021, members of PSPE Steering Committee approved the extension of PSPE project specific agreement until 14th March 2023 and the project implementation period until 31st December 2022. The same meeting approved the amended project technical and financial file with budget implication summarized in the table below:

Table 1: Budget comparison initial and new amended budget

				Intitial budget	Am end me int	medality
SC)		The energy sector is able to provide sufficient, reliable and affordable energy for all Rwandans	1,293,80 0	1,476,940	
A	01		BRD is able to analyse the viability of renewable energy project proposals	840,000	603,765	
A	01	01	Technical assistance through an expert in renewable energy financing	540,000	251,851	Cogestion
A	01	02	Development of Tools for analysing renewable energy investments	200,000	153,486	Cogestion
A	01	03	Specific training on analysing renewable energy investment	100,000	137,664	Cogestion
A	01	04	Technical assistance through an expert in renewable energy Risk Management	0	60,764	Cogestion
A	02		BRD is able to proactively identify a pipeline of potentially viable projects and assist the private sector to develop them	453,800	873,175	
A	02	01	Reach out to financial institutions and private companies	190,000	353,946	Cogestion
A	02	02	Capacity building among local companies to develop bankable business plans	188,800	429,877	Cogestion
A	02	03	Match making between local companies and international parties interested in renewable energy electrification and in promoting Women's entrepreneurship in the sector in Rwanda	75,000	58,690	Cogestion

A	02	04		Dedicated hands-on coach to SACCOs and	0	30,662	Cogestion
		·		DOA impact monitoring			- 8
X				Contingency	221,800	5,188	
X	01	01		Contingency cogestion	180,000	0	Cogestion
X	01	02		Contingency regie	41,800	5,188	Regie
Z	148			General means	484,400	517,872	
Z	01			Wages and Salaries	270,900	371,155	
Z	01	01	00	Intervention manager	108,000	199,027	Regie
Z	01	04	00	Energy Sector Shared staff	51,300	51,300	Regie
Z	01	05	00	Support Staff	0		
Z	01	06	00	Support Staff	111,600	111,451	Cogestion
Z	01	07	01	Driver	0	9,377	Regie
Z	02			Investment	10,000	12,101	
Z	02	01	00	IT and Office Equipment	10,000	12,101	Regie
Z	03			Running cost	73,500	27,682	
Z	03	01	00	Communication costs	10,800	9,500	Cogestion
Z	03	02	00	Office materials and other functioning costs	12,000	4,318	Cogestion
Z	03	03	00	Field Missions	6,000	3,000	Cogestion
Z	03	04	00	External Communication costs	7,500	0	Cogestion
Z	03	05	00	Training	36,000		Cogestion
Z	03	06	00	Financial costs	600	200	Regie
Z	03	07	00	Financial costs	600	1,000	Cogestion
Z	03	08	00	VAT costs	0		Regie
Z	03	09	00	VAT costs	0		Cogestion
Z	03	10	01	Fuel and car maintenance	0	9,664	Regie
Z	03			Audit, monitoring, evaluation	130,000	106,934	
Z	04	01		Evaluations (mid-term and final)	80,000	78,934	Regie
Z	04	02		Audit (annual)	20,000	18,000	Regie
Z	04	03		Technical backstopping Enabel	20,000	0	Regie
Z	04	04		Knowledge Management	10,000	10,000	Regie
то	TAL				2 000	2 000 000	TRUE EN

2 RESULTS ACHIEVED

2.1 Monitoring matrix

This section briefly describes the project performance against its target indicators. In total, 4 indicators have been retained for the project impact, 9 indicators have been retained for the outcome and 9 indicators have been retained for project's outputs. Despite several challenges, commendable performances have been achieved by PSPE project across all the output indicators.

2.1.1. 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". So far, with activities that have been implemented, several changes are taking place as depicted in the table below:

Table 2: Impact by PSPE project

Level	Impact or change brought about by PSPE project
At the level of	Increase in the lending portfolio for BRD and the profitability of the Bank
BRD	Creating organizational knowledge around renewable energy and off-grid projects within the
	Bank
At the level of	Eligibility of Solar companies to participate in REF implementation
the private	Bankable business plans and feasibility studies that are preconditions to access REF credit line
sector	> New solar companies have acquired more capabilities that allow them to actively participate
	in increasing the number of households with access to electricity
At the level of	Increase number of households connected through SACCOs
SACCOs	Increased and strengthened capacity of SACCOs in the off-grid market as financial
	intermediaries
At the level of	Connected households are enjoying several benefits. Health risks have been reduced since oil-
end-users	based lighting is no longer used
(indirect	Educational benefits arise from the ability for children to properly do their homework in the
beneficiaries)	evenings thanks to sufficient lighting
-	Information can be accessed and shared within the family thanks to convivial moments
	between man, woman and their children in the household during the evenings via TV and radio
	➤ Increased income through productive use of SHSs: e.g handcrafting
Deal	Improved standard of life of deal origination agents because of incentives paid to them
Origination	Created jobs for the unemployed youth in the rural areas
Agents	

2.1.1 Performance outcome

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

2.1.2 Progress indicators

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

The PSPE steering committee held on 10th May 2021 approved the TFF amendment baseline report including the result matrix. The result matrix includes indicators of all the components of the results chain (Impact, outcome, and Output).

Table 3: PSPE outcome progress indicators

Indicators	Baseline	Value	Target	Value	Target	Value Dec	Target Dec	Value Dec	Target Dec
	value	Dec	Dec 2019	Dec	Dec	2021	2021	2022	2022
Number of HH electrified through	0	492	24,237	572	77,560	69,752	120,000	206,696	194,900
Number of people provided with	0	2,541	98,039	2,941	313,725	282,532	480,000	880,235	784.314
new or improved electricity fully		· }	}) ; ;			}	
functional									
All five REF windows show	000'009	1,227,0	2,500,00	1,425,052	8,000,00	7,594,457\$	20,000,000\$	17,300,000\$	30,000,000\$
significant disbursement (PV		72	0		0				
lanterns and PV systems: SACCOs,									
local banks, mini-grids)									
Increased private sector investment	0	Not .	750,000	0	2,400,00	1,427,299\$	3,000,000	12,554,943\$	000,000,9
in renewable energy electrification		кпомп			0				
The size of the energy portfolio of	N/A	N/A	N/A	N/A	N/A	0	0	0	က
BRD, indicated by the number of									
mini-grid project proposals that are									
approved by BRD during the PSPE				×					
Project implementation									
The number and value of	N/A	N/A	N/A	N/A	N/A	57	60 agreements	57 agreements	70 agreements
agreements signed between BRD						agreements	/\$2,000,000	/\$1,925,000	/US\$2,701,525\$
and SACCOs (Window 1)						/\$1,925,000			
The number of agreements signed	N/A	N/A	N/A	N/A	N/A	œ	∞	∞	∞
between BRD and MFI & Banks									
(Window 2)				8					
The number and value of loan	N/A	N/A	N/A	N/A	N/A	2 OSCs	6 agreements	11agreements	13 agreements
agreements with private companies						/\$6,000,000	/12,000,000\$	/6,941,970.28\$	/12,000,000\$
for the realization of renewable									
energy projects (Window 2, 3, and									
-		17.44	1,1,1	77.75	****	000	11 000	000-	7-000
Number and value of subsidy	N/A	N/A	N/A	N/A	N/A	27 USUS	10 USCS //	230505	15 USUS/
requests placed by OSCs for KBF subsidy (REF Window 5)						/ 45,463,957	\$10.000.000	/27,170,641\$	05\$ 15,000,000
6									

2.1.3 Analysis of progress made

By and large, final targets of outcome indicators were achieved. That means, REF project in collaboration with PSPE Project went extra mile; 23 solar companies requested \$27,170,641.27 for result based financing, and this was already approved by BRD for RBF financing. This 27,170,641.27\$ will connect more than 243,593 households. Whereas no mini-grid developer participated in the BRD window 3. Despite this challenge, PSPE project has been partnering with the EnDev program to subsidized some of the mini-grid developers supported by PSPE and increasing the number of HH connected in the off-grid zones. At the first stage, EnDev launched a call for proposal, and 5 mini-grid companies have submitted their proposal, after conducting deep screening Mesh Power and Munyaxeco were only companies which were allowed to move to the next state of detailed assessment. Despite the effort made by EnDev to provide subsidy to these companies, Mesh power didn't get subsidy because its selected site was taken by EDCL because it hadn't sign any MoU with EDCL. On another hand, the site of Munyaxeco were seen to not being viable regardless of the magnitude of the subsidy which can be provided to it. As at end December 2022, Mesh Power was still under negotiation with EDCL to meet precedent conditions enabling it to get subsidy from EnDev, and Munyaxeco was seeking for another bankable site which could be considered by EnDev so that it can be able to access its subsidy.

2.2 Performance output 1

2.2.1 Progress of indicators

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

Table 4: Progress indicators output 1

Indicators	Baseline	Value	Target	Value	Target	Value Dec	Target Dec	Value Dec	Target Dec 2021
	value	Dec 2019	Dec 2019	Dec 2020	Dec 2020	2021	2021	2022	Dec 2021
The capacity of the renewable energy unit	N° staff trained (M/F	2019	5	27	10	43	10	55	10
of BRD, expressed by the number of staff at BRD trained and able	30 WD for project below 50Million	16	25	19	20	10	20	10	20
to assess renewable energy projects and by the average time for proposal analysis (delay between	60 WD for project between 50 million - 1 billion	NA	50	NA	40	30	30	30	30
proposal received and feedback to the client)	90 WD for project above 1 billion	NA	80	NA	60	48	45	48	45
Number tools and templates, developed and adopted by BRD for renewable energy project analysis	o	NA	NA	NA	NA	13	6	13	6

2.2.2 Analysis of Progress made

Technical Assistance to BRD

development and revision of 22 tools required to guide projects implementation. All the 22 tools and templates have been uploaded on the BRD website and are being utilized by BRD or its partner institutions in the off-grid sector. The table below summarize the major tools developed with Through the services of the Renewable Energy Financing Expert and Financial Risks Management Expert, PSPE project supported BRD in the the support of PSPE project.

Table 5: Tools developed with the support of PSPE project

	TITLE OF THE	TOTAL PRINCE	PURPOSE	TARGET	UTILIZATION /	TRAFFIC
	TOOLS/TEMPLATES	COMPLETION		USERS	SUSTAINABILITY	LIGHTS
	Template for credit	May 2019	REF PIU uses this template in	REF PIU	Until the REF duration. Some	
	appraisal of off-grid solar		credit appraisal of OSC loans		templates can be used for Clean	C
_	companies			i	Cooking with few modifications.)
	Template for business plan	May 2019	Small-scale solar companies	Locally	The OSCs can apply the template as	(
0	for off-grid solar companies		follow template to develop	managed	long as they are in the business.	
			business plan for REF loan	OSCs)
Ιĕ	Window 5 Operations	September 2020	The mechanism guides REF to	REF PIU,	Until the Window 5 duration, Dec 2026	
	Manual		implement subsidy	EDCL)
ΙĒ	Template for term-sheet for	May 2019	REF PIU issues term-sheet	REF PIU	The template can be used in the long-	(
S	OSC financing		based on this latest version		term, with few modifications.)
E	Template for financial	April 2020	4 models developed for REF	REF PIU,	The REF PIU is using this template.	
ğ	modelling for REF windows		windows help analyze RE loans	SACCOs,	Can be used until REF duration.)
				MGDs		
	RE financing documentary	March 2019	The documentaries prepared in	REF PIU,	The DOAs can use this documentary	(
=	for mass-user awareness		Kinyarwanda help creates	SACCOs,	for mass-user awareness and demand	0
			awareness on SHS financing	MFIs	collection.)
1	REF Operations Manual	April, Sep, Nov	REF adopts the revised version	REF PIU	Until the REF duration. Frequent	
		2019	for project operation		revision is required in the future.	
F	REF Environmental Code of	July 2019	The manual guides REF to	REF PIU,	Being considered for REF project as	(
30	Practice (ECOP)		manage used batteries and solar	OSCs, MGDs	environmental practices are part of	0
Ë	(contributed to finalize the		accessories		REF eligibility criteria (Recycling)
	manual)				Policy)	
ᅙ	Tool of off-grid SHS price	September 2019	EDCL requested all OSCs adjust	EDCL	Currently not in used. It was designed	
Έ.	analysis		their price based on the tool		to adjust the SHS price.)

							(0	i.		(0		(0)	(0))				C	
Under use by REF for OSC appraisal, to calculate economic benefits	Until the REF duration. Frequent revisions may be required to address	the change scenario.	Being used by REF PIU for the OSC	appraisal for Window 5 subsidy.	Being used by OSCs. 25 applications	received through this package.	Being used by EDCL and BRD for the	clean cooking RBF implementation.			Underutilization by the clean cooking	companies.		Being used by BRD for subsidy	disbursement. Minor revision might be	required in future.	Being used by BRD. SACCOs and banks	are under process of adopting this	manual.	Being used by REF Team			Being used by Risk Department of BRD					The tool is being validated by BRD	management, but it will be approved before the end of PSPE Project
REF PIU	REF project		REF PIU		OSCs		BRD, EDCL				Clean cooking	companies	(CCP)	BRD			Participating	Financial	Institutions	REF team			Risk	Department				Risk	Department
The tool helps to quickly estimate benefits from SHS	World Bank is in the process of restructuring REF project based	posed revisions	e guides	prepare Window 5 appraisal report	The packages guide OSC the	process for Window 5 application	The manual guides the	procedures for the US\$ 20	million clean cooking project	operation	The package guides Clean	Cooking companies apply for	clean cooking RBF	The template is being used by	BRD for the disbursement of	Window 5 RBF subsidy	e fo	implementation of Sida	guarantee by PFIs	This is a quantitative method to	analyse SACCOs eligibility for	REF loans window 1	This is the tool used to identify,	measure, manage, and monitor	if the internal capital considers	adequate to cover all material	risks to which it is exposed	This is the tool used by BRD to	select good or bad clients basing on creditworthiness
July 2019	September 2019		November 2020		October 2020		December 2020				March 2021			April 2021			July 2020			October 2021			May 2022					ongoing till	December 2022
SHS Benefit Calculator	Amended REF rule books (Financing Agreement,	greement)	Template for Window 5	Appraisal	Window 5 Application	Package	Operations Manual for	Clean Cooking			Clean Cooking Application	Package		Template for Window 5	subsidy disbursement note		Guarantee Framework	Operations Manual		SACCOs Loan application	multi-criteria analysis tool		Internal Capital Adequacy	Assessment Tool				Credit Rating Model	ļ
01	11		12		13		14				15			16			17			18			19					20	

)			
Being used by Risk Department of BRD								The tool is utilized by Compliance	Department of BRD to test the level of	AML/CFT		
Risk	Department							Compliance	Department	of BRD		
This is the tool indicating how Risk	the bank will manage the risk, Department	principles to manage the risk,	and it is also showing how the	risk will be directed from staffs	to board. It also indicates how	the risk is identified and	managed.	The tool will be used by the Compliance	compliance department to Department	assess the level of AML and CFT of BRD	at BRD.	
July 2022								On- going till the	end of December	2022		
Risk Management July 2022	Framework							Tool for the assessment and On- going till the	AML/CFT risk (anti-	moneylending and 2	Combatting Financing	Terrorism)
21								22				



Template being applied by BRD or other stakeholders

Template is available. Stakeholders can implement anytime



Not in implementation or completed implementation

The capacity building of BRD has been designed and implemented at both organizational and individual level. At organizational level, several tools and processes have been developed. Unlike the organizational level capacity building, the individual level capacity building deals with strengthening skills and knowledge of the bank staff through training, coaching, and mentoring. 54 staff members of BRD were trained in different fields such as;

- 1. Training on Financial Modelling of Renewable Energy projects
- 2. Orientation training on de-risking renewable energy investment, in partnership with ETH Zurich
 - 3. Certified Training on Climate and Renewable Energy Finance.
 - 4. Hands-on coaching and consulting (on-the-job training)
- Financial Modelling 10.
 - 5. Effective communication and presentation skills
- ESG and Impact Investing

ACCA and CPA Training

6

Training in Renewable Energy Analysis Strategic Risk Assessment Training

9 % 6

Project management professions

The achievement of this indicators was facilitated mainly by the hybrid nature of the contracts with experts outsourced under the project. Instead of monthly payment cost structure, the project adopted a cost-plus incentive fee, the incentives were paid only upon achievement of some output level indicators.

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

Table 7: Progress indicator output 2

Indicators	Baselin e value	Value Dec 2019	Target Dec 2019	Value Dec 2020	Target Dec 2020	Value Dec 2021	Target Dec 2021	Value Dec 2022	Target Dec
The # of events campaigns organized and male/female participants at these events. Disaggregated in males and females	0	4 events/ 368 participants (311M/57F)	2 events / 100 participants (50/50)	7 events / 421 participant (356/65)	4events / 400 participants (200/200)	9 events / 1261 Participants 942/319	6 events / 600 participants (300/300)	9 events / 1261 Participants 942/319	6 events / 600 participants (300/300)
Number of companies reached for training and support	0	39	11	57	36	75	71	76	71
Number of small off-grid solar companies assisted to develop business plan and apply for REF loans	N/A	N/A	N/A	N/A	N/A	11	10	10	10
Number of mini-grid developers supported to develop detailed feasibility studies	N/A	N/A	N/A	N/A	N/A	10	10	10	10
Number of detailed feasibility study of mini-grid projects conducted and submitted to BRD	N/A	N/A	N/A	N/A	N/A	20	20	20	20
Number of Deal Origination Agents (DOAs) recruited and trained for pipeline creation of solar home systems	N/A	N/A	N/A	N/A	N/A	592	400	592	500
Number of solar home systems installed (number of household connections) through DOA initiative	N/A	N/A	N/A	N/A	N/A	24,201	30,000	54,034	60,000

2.3.1 Analysis of progress made.

2.3.1.1 Support to SACCO-Solar Companies joint marketing through DOA

PSPE steering committee meeting earmarked £353,946 to support the SACCO-Solar Companies joint marketing through DOA. The main objective is to increase the utilization of REF Window 1 (on-lending to SACCOs) and to direct lending to solar companies to accelerate the electricity access by poor rural households through participation of Solar companies. In the first 6 months of DOA's implementation, deal origination agents provided services that contributed to improved performance of SACCOs and Solar companies. Not only did the agents increased awareness of rural households about the off-grid solutions, but also, they increased the SACCOs' overall performance. From February 2021 to December 2022, DOAs have made installations equivalent to 54,034 SHSs, which means installation of 2,456 kits every month. Among these connections, 14,6% were connected through the SACCOs, that means 7,912 connections were done through the SACCOs, however, 85,35% (equivalent to 46,122) were connected by OSCs through window 5 in the areas where no SACCOs did sign any agreement with REF project.

2.3.1.2 Performance of OSCs in DOA program

During the implementation of DOA program, OSCs have been demonstrating extraordinary increment of rate of connections in the off-grid zone especially in the areas containing the households who could not get the loan from the SACCOs because these SACCOs didn't have agreement with BRD. From the data below, 60% of the total installations were connected by BUIM. And the rest of the connections were connected by other remaining companies.

Table 8: the table summarizes the performance of the OSCs in DOA program from February 2022 to December 2022.

	Name to a fall of	Gen disaggre outside the	egation	Total amount	Total Subsidy
Name of OSCs	Number of the SHS installed outside the SACCOs	Number of Males head of HH /Business	Number of Females head of HH/ business	paid by the households without subsidy (Frw)	amount outside the SACCOs (Frw)
Erogec	681	321	360	15,100,000	66,620,000
KLOMENA	280	151	129	4,500,000	30,000,000
SAFER 1	4335	2771	1564	93,775,000	461,600,000
BUIM	27525	13467	14058	1,039,873,300	2,501,644,500
INNOTECH	486	215	271	14,235,000	44,070,000
NESELTEC	1423	950	473	32,980,000	137,800,000
SPOTICO	8469	5041	3428	284,705,000	731,570,000
GECO	658	292	366	14,180,000	64,900,000
Munyaxeco	65	20	45	1,178,750	6,280,000
Erogec	2184	1041	1143	47,183,250	206,649,250
GDG	16	12	€ 4	360,000	1,560,000
	46122	24281	21841	1,548,070,300	4,252,693,750

In summary, the table below shows the total connections made during the DOA program with the contribution of the households and the dedicated subsidy

	nections Through d by DOA	SACCOS	SHS Conne DOA	ctions through o	nly OSCs facilitate by
Number of SHS	Loan	Subsidy disbursed	Number of SHS	Amount to be paid by HHs	Subsidy disbursed
7,912	Frw 375,351,070	Frw 627,483,980	46,122	Frw 1,548,070,300	Frw 4,252,693,750
rotal con	mections in	Total Amount to	be paid by th	AOU ni aliti a	Total Subsidy Dishursed
54,034		Frw 1,923,421,3	70		Frw 4,880,177,730

2.3.1.3 Detailed Feasibility Studies (DFS) of 20 mini-grid sites

Through the consulting joint venture firm composed of TecnoAmbiental, SL(TTA) and Africa Energy Services Group (AESG), PSPE supported 10 mini-grid developers to conduct the detailed feasibility study for 20 mini-grid sites. Out of 20 sites, 12 are technically and financially viable assuming a subsidy equivalent to 70%. The development of the sites that are technically and financially viable will depend on the availability of subsidy. For this reason, PSPE got in touch with EnDev that has started the formulation of subsidy program to be developed around the detailed feasibility studies enveloped with the support of PSPE project. To ensure the sustainability of these 20 DFS and to allow developers the possibility to review and adjust those DFS, PSPE has acquired homer Pro Software licenses that have been distributed to the 10 minigrid developers supported by the project. As stated in the case above, the development of the sites that are technically and financially viable would have depended on the availability of subsidy. For this reason, PSPE has been partnering with EnDev which has started the subsidy program aiming at supporting the mini-grid developers having detailed feasibility study in place. On 17th January 2022, EnDev launched a call for proposal which was supposed to close on 7th February 2022. During this phase, the following mini-grid companies applied:

- 1.ERE LTD with 5 sites
- 2.Mesh Power LTD, 5 sites
- 3.GLAS LTD, 5 sites
- 4.MUNYAXECO LTD, 5 sites
- 5. Power Energy Developers, 5 sites.

The phase above was followed by pre-qualification phase where the mini-grid companies were mandated to submit preliminary documents such as RDB certificates, Rwanda Revenue Certificates, documents indicating the relevant experience of the company in off-grid sector, as well as copy of feasibility study developed under Enabel support. The EnDev also requested the companies to secure an equity equivalent to 15%. During the pre-qualification phase, only two companies were selected; Mesh power and Munyaxeco were selected to move on to the full application stage. During the full application stage, two selected companies submitted financial, technical, and administrative proposals. This phase was followed by field visit aimed at assessing the viability of the sites allocated to it during the support funded by PSPE Project. During the site visit, the assessors noticed that the sites were given to Mesh Power were utilized by EDCL as Mesh Power had not signed any Memorandum of Agreement with EDCL, this site was considered free. To sort out this problem, EnDev and EDCL meet to discuss how this problem could be solved, the meeting concluded that Mesh Power should be given another site. For the case of Munyaxeco, after conducting internal assessment of its allocated sites, they have seen that all sites couldn't be financially viable. Therefore, EnDev recommended Munyaxco to choose another village which was not among the ones proposed in its detailed feasibility study supported by PSPE Project. Therefore, Munyaxeco was requested to submit a new application. EnDev shall launch a new RBF (Result-Based Financing) program which will facilitate these mini-grid to sign RBF with EnDev.

2.3.1.4 A SHS warehouse in Kigali for a wholesale to small OSCs

PSPE has been in touch with Chinese supplier from LEMI Technologies who established a warehouse in Kigali for a wholesale to small scale solar companies. LEMI technology supplier of LEMI solar kits has had agreements with local OSCs namely, INNOTECH, MUNYAXECO, GLASS, GECO, SAFER1 and GDG. Once the solar kits arrived at Kigali, they were sold to the mentioned companies before being sold to the households. LEMI have distributed 30,966 kits of 20 W of which 27,166 have been sold to small solar companies. In addition to that, LEMI has sold 13,000 kits of 20W and 12,000 kits of 10W to the above companies. This intervention was supported by PSPE Project to ensure continuity of OSC's business.

2.3.1.5 Increase in number of local OSC participating in REF implementation

Through the services of the off-grid private sector development hands-on coach, PSPE contributed to the assessment of REF applications of solar companies. As a result, 14 small scale new companies have been approved to participate in REF implementation. Some solar companies supported by PSPE project has been receiving loan from different banks as follows:

- On 17th November 2021, Erogec was given a loan of Frw 200Million by COGEBANQUE
- On 1st February 2022, Safer 1 was given a loan of 70 Frw Millions by BK
- > On 29th September 2022, BUIM was given a loan of 200 million by Bank of Africa.

This wouldn't have been achieved without the assistance provided by Renewable Energy Financing Expert who has been coached the investment officer to use sophisticated tools to speed up the credit analysis of their clients.

2.4 Analysis of results

This section briefly describes the attainment of results that were planned under the PSPE project. The results are assessed at impact, outcomes and outputs levels as presented below:

2.4.1 To what extent will the intervention contribute to the intended impact?

As highlighted earlier, the overall objective of PSPE project that also reflects the intended impact was stated as follows: "The energy sector is able to provide sufficient, reliable and affordable energy for all Rwandans". This was expected to be reached through the enabling role played by PSPE project in terms of capacity building activities to BRD, off-grid solar companies (OSCs), mini-grid developers, commercial banks, MFI, SACCOs and awareness raising activities targeting local authorities the rural poor households who are the end user of REF and PSPE support.

It is therefore clear from the project objective that the impact of the PSPE project is more to be seen from the side of household's wellbeing and access to energy.

Though no impact evaluation has been conducted to assess the extent to which PSPE has helped households to access electricity from renewable energy sources, evidence shows that PSPE project has set strong foundations for BRD, commercial banks, SACCOs, MFI and solar companies to effectively deliver products services required for the acceleration of the access to electricity from renewable energy sources, especially the solar home systems (SHSs). The impact is expected to be manifested through several drivers namely the strengthened BRD capacity, and enabling elements created by PSPE project.

Conclusively, the impact of PSPE Project will be achieved in case different actors keep supporting the solar companies to develop their technical and financial capabilities in after sale services. In addition to that, low purchasing power of end users has been seen a constraint to the impact of PSPE Project. Therefore, IMU of PSPE Project is recommending different actors embedded in energy sector to come up with affordable productive use of SHS which can contribute to the

increment of purchasing power of end users. The increment of purchasing power of end user will cater the maintenance cost of solar home system product or they can be able to purchase the new product without waiting for a new intervention of the donors or government.

a. Strengthened BRD's capacity in Renewable Energy project proposals analysis

Energy is one of the BRD's five priority sectors, other being exports, education, agriculture, infrastructure and housing. Before REF project, BRD had financed several micro-hydropower plant (MHP) projects through leasing or debt financing. However, it was only through REF that the bank got fully immersed in the off-grid renewable solutions, primarily the standalone solar home systems solutions. With REF, the bank was entrusted with managing credit and subsidy lines to finance off-grid electrification proposals from commercial banks, Microfinance institutions, SACCOs and off-grid solar companies. The organizational assessment conducted by the World Bank before REF implementation unveiled capacity gaps related to renewable energy analysis. This capacity gap was seen as one of the major hindrances for REF implementation and was the major reason for the Belgian Technical Assistance through PSPE Project.

It is noteworthy to mention that through its implementation, PSPE project strived to close all BRD capacity gaps both at organizational level and individual level.

At organizational level, PSPE project, through the services of the renewable financing expert and a contract with Q-lana, 22 tools to facilitate implementation of renewable energy have been developed and are being used.

At individual level, 53 BRD staff working directly or as support staff on REF project and Clean cooking project have been trained in 12 various subject to ensure they have required capacity to effectively implement those renewable energy projects. The acquired capacity is the foundations for BDR energy sector financing which will have a positive impact on rural households' wellbeing.

b. Increased number of Solar companies active in the off-grid market

At the beginning of REF implementation only few international companies were active in the Rwanda off-grid market. These include ENGIE MOBISOL, IGNITE, BBOXX, One Acre Fund, OFFGRID ELECTRIC, AZURI. With the support of PSPE project 11 more companies that, were passive before, are currently actively participating in connecting rural households with SHSs. The supported small scale solar companies include SPOTICO, NESELTEC, GECO, INNOTECH, GDG, MUNYAXCO, BUIM, EA MG Group, INTETECH, GLASS LTD and SAFER1.

The support by PSPE project helped these solar companies to increase their presence and sales in the off-grid market. Unlike the big international companies that are the first movers or occupying the leadership positions in the market, most of the small-scale solar companies became active and making profit only after PSPE supported them to be eligible for REF funds.

Since they are making profit by connecting households, it is logically expected that they will continue the business, and hence positively changing the life of poor families in rural areas.

c. Mini-grid sites feasibilities supported by PSPE to benefit subsidies from EnDev for their development

Since the beginning of its implementation the Renewable Energy Funds, which is a credit line funded by the WB and implemented by BRD, has received very few mini-grid proposals for funding. This is mainly due to the lack of capacity from mini-grid developers to conduct sound detailed feasibility studies. To overcome this capacity gap in the feasibility study, a renewable energy de-risking approach has been implemented by PSPE, not only to tackle the capacity of

developers, but also the capacity of local design offices as well as the issue of sunk cost. In addition to strengthening the capacity of developers and local consultants, the approach includes the development of bankable projects. It is in this framework that, in collaboration with the Energy Private Developers, BRD and EDCL, PSPE project supported 10 developers namely, Hobuka LTD, GESS LTD, Power Energy Developers, Great Lakes Power LTD, MUNYAXECO LTD, Mesh Power LTD, ERE LTD, NESLECTE LTD, Serve and Smile LTD and Green Utility for Africa Group.

At the end of the feasibility study, from 50 sites that underwent screening and detailed feasibility studies (DFS), only 20 sites reached the final stage and out of these 20 sites 12 sites were assessed technically and financially bankable upon a subsidy equivalent to 70% of capital. In order to make an impact of PSPE Project so that the money spent during this activity can be cost effective, PSPE project in collaboration with REF project and EDCL and MININFRA would like to have meeting aiming at supporting these actors to sign MoA (Memorandum of Agreement with EDCL) so that they can benefit in case any subsidy is availed.

d. Majority of potential beneficiaries are aware of the benefit of off-grid solutions thanks to the PSPE awareness campaign

The general objective of the awareness campaign 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 households be included in the local government performance contract, and increased partnership between BRD and local authorities to speed up electrification of rural households through lending from the Renewable Energy Funds.

In the Eastern province in particular focal points for REF implementation have been appointed by the Governor as follows:

- Provincial level: Executive Secretary of the province
- District level: Vice Mayor in charge of Economic Affairs
- Sector level: Executive Secretary of the sector

2.4.2 To what extent has the outcome been achieved?

Throughout the implementation of PSPE project, the aim was to increase the generation and distribution of electricity from renewable sources, by the participation of the private sector. To achieve this objective, PSPE supported the strengthening of BRD's capacity to analyze renewable energy and supported the private companies to develop bankable business plans, enter the off-grid market and sell solar home systems. Despite several challenges, with the support of PSPE project solar companies managed to install panels on 206,696 households benefiting 880,235 people in the rural off-grid areas.

The implementation of REF is not possible without the availability of SHS products in Rwanda. Small scale solar companies expressed the need to be supported to get solar kits that they can sell on the Rwandan market. PSPE has been in touch with Chinese supplier from LEMI Technologies who established a warehouse in Kigali for a wholesale to small scale solar companies. LEMI technology supplier of LEMI solar kits has had agreements with local OSCs. When the solar kits arrive in Rwanda, they are whole sold to local companies before being sold to the households. In addition to international companies that are selling SHS to households in the off-grid market, the availability a warehouse of solar home system in Kigali is increasing the access to electricity in the off-grid sector.

After the introduction of a subsidy scheme by BRD and WB as the 5th window of REF to tackle

the affordability, solar companies have joined massively the subsidy window and USD 27,170,641.27 have been requested by 23 solar companies and approved by BRD. In case REF will continue to implement DOA program as it is planned, more than 445,000 Rwandan households will be connected by 2024.

2.4.3 To what extent have outputs been achieved?

The achievement of project outputs is very satisfactory (92% of indicators already achieved) and budget fully utilized by the project. For the realization of the project outcome which is about increasing the electricity access through participation of private sector, the project was expected to achieve two following outputs: (1) BRD is able to analyze the viability of project proposals and (2) BRD is able to proactively identify a pipeline of potentially viable projects and to assist the private sector to develop them.

Performance output 1: BRD is able to analyze the viability of project proposals.

To meet this output, the project has set two indicators with 5 targets. All these 5 outputs indicators have been achieved and the acquired capacity is being utilized by BRD.

For instance, at organizational level, PSPE project supported BRD to develop 22 tools to analyze Renewable Energy projects and all 22 tools are being utilized by BRD. At individual level 55 BRD staffs have been trained to strengthen their capacity in the analysis of energy loans proposals. For example, before the implementation of PSPE Project, REF staffs used 60 Working days to assess the loan between 50Millions and 1 billion, however, after being exposed to different tools, and being trained in financial modelling, these days have been reduced up to 30 days.

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

To meet these outputs, the project has set 7 indicators, and all these indicators were achieved. Previously, the main challenge to be addressed by the project was the low availability of pipeline to be financed by REF. In fact, to support the availability of pipeline to be financed by REF, PSPE organized 9 events for 1361 actors in the off-grid sector (942 men and 319 women). 75 companies have also been reached and supported and particularly 11 off-grid solar companies have been supported to develop business plans to access REF credit line.

To unlock the REF window 3 about direct lending to mini-grid developers, PSPE project supported 10 mini-grid developers to conduct prefeasibility studies of 50 sites and detailed feasibility study (DFS) of 20 sites. Out of these 20 sites that underwent DFS 10 were assessed technically and financially bankable if a subsidy is availed.

2.4.4 To what extent did outputs contribute to the achievement of the outcome

The PSPE outcome is the increase of the generation and the distribution of electricity through participation of the private sector. The link between this outcome and the 2 project outputs is noticeable. BRD as the organization that the government of Rwanda has entrusted with the responsibility to manage REF project and increase access to finance for private off-grid companies and households in rural areas, was expected to have required capacity to analyze renewable energy proposals. With different capacity building activities conducted by PSPE project, BRD staff can now analyze loan applications effectively and efficiently in the energy portfolio, and masters strategies to de-risk the off-grid sector. It is in this framework that, after the exposure visit to Nepal and Bangladesh, the Rwandan team composed of BRD representatives and representatives from EDCL, Umwarimu SACCOs, EPD and MININFRA recommended the creation of subsidy window with REF to tackle the problem of affordability. This allowed BRD to approve \$27,170,641.27 for subsidy applications from 23 OSCs. This amount of subsidy has been allocated to connect 238,753 households.

Through coaching and mentoring, the agility of PSPE as project management skill and approach was also transferred to REF. This resulted into the Cana Challenge initiative that involves mobilizing funds for ubudehe 1 category project which accelerated the rate of SHS installation at high speed.

Similarly, the achievement of the second outputs related to the availability of pipeline to be financed by BRD through REF has and will keep increasing the number of households connected with off-grid solutions. This pipeline is a prerequisite for all REF financing and hence importation of SHSs to be installed on eligible households in the rural off-grid zones.

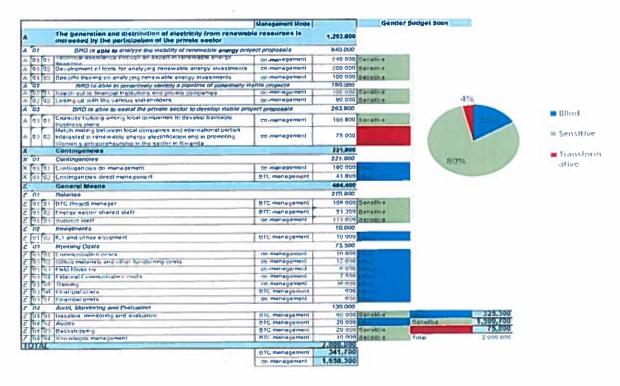
2.4.5 Assess the Integration of Transversal Themes in the intervention strategy

2.4.5.1 Gender mainstreaming

Regarding the transversal themes, gender was part and parcel of the implementation of PSPE project. In fact, gender mainstreaming is particularly taken into consideration in all the activities implemented as part of PSPE project. During the baseline exercise, the Enabel 'Gender Budget Scan' tool has been used to assess the PSPE project budget's gender sensitivity (i.e. the extent to which the budget lines have been designed to take into account the gender parameters).

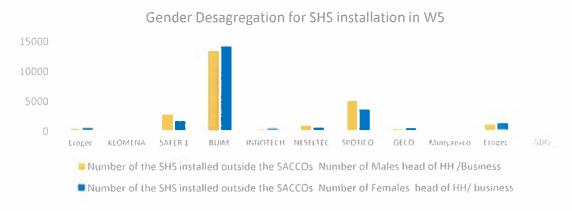
The project implemented several affirmative actions and positive discrimination activities where women-led companies were selected and supported by the project.

In alignment with the provision of TFF, the project supported women entrepreneurs operating in energy sector particularly in the off-grid sub-sector to support them to address several challenges. The PSPE supported women by providing advisory services, coaching, training, and the development of clear business plans that are unconditional tool to have access for available source of funding such as Renewable Energy Fund (REF) and Renewable Energy Performance Platform (REPP). Using the pool of experts in renewable energy available at BRD, PSPE has supported the two women led companies to develop a joint business plan that was submitted to REPP for financing. As part of de-risking activities, PSPE accompanies consortium POWA Women in its discussion with REPP. After the submission of the Business Plan, POWA Women was among 12 companies around the World and the only company in Rwanda, that have been selected by REPP.



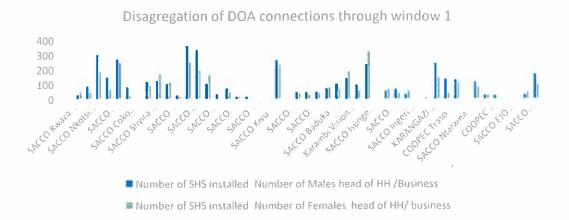
In addition, PSPE monitoring process is gender sensitive as all people-related data are disaggregated into males and females to track the project impact by gender as shown in the following diagram:

a) Figure1: Gender desegregation of DOA connections through window 5



Basing on the chart above, the number of females connected by BUIM in DOA program is greater than their counterparts.

b) Figure2: Gender desegregation of DOA Connections through window 1



During the connections made through the SACCOs during the implementation of DOA program, the number of the females connected through window 1 is not negligeable across all SACCOs. Basing on the number of connections made at SACCO Isunge Ngarama, we can observe that the number of females connected through DOA is greater than the number of males in the same SACCO.

3 SUSTAINABILITY

3.1.1 What is the economic and financial viability of the results of the intervention? What are potential risks? What measures were taken?

In terms of sustainability of the PSPE project interventions, there has been a number of initiatives aiming at perpetuating the PSPE legacy. These initiatiatives mainly include:

- The support to mini-grid developers to conduct feasibility studies which included element of coaching local companies by international experienced companies, to ensure mini-grid developers have acquired skills and required knowledge to conduct feasibility studies any time they need it. This activity was accompanied by the supply of Homer Pro software that will be used by developers to update DFS or develop new ones.
- The sustainability of any given project result resides in its utilization or exploitation by users, through activities adding value or consumption that provide more satisfaction. After the support provided to mini-grid developers, EnDev has formulated a subsidy programme to solely finance the DFS developed with PSPE support.
- Different tools that have been developed with the support of PSPE project are being utilized and it is expected that they will be utilized even after the closure of the project.
- > BRD staff trained with the support of PSPE project have been utilizing acquired skills in the renewable energy project implementation including, but not limited to, financial modeling and project analysis.

3.1.2 What is the level of ownership of the intervention by target groups and will it continue after the end of external support? What are potential risks? What measures were taken?

The overall ownership of the PSPE project is manifested through the involvement of BRD management in its implementation.

The sustainability is expected to be very good at the level of BRD staff and organization. BRD core team has been trained to be able to properly execute the organizations' mandate especially on lending side, risk analysis and understanding technicalities for energy portfolio. On top of that, trainings, developed tools and templates will remain within the organization to be used in the long run beyond PSPE and REF. One example is the credit management system that will allow for loan life cycle management, to be used from loan origination to final repayments. So far, UTA test was completed, and after the closure of the project, there will be post implementation of the software to ensure that is supporting BRD in efficient and effective manner. BRD is clearly taking ownership of the trainings and tools by investing in terms of ICT infrastructure (servers etc.)

The strong collaboration put in place with EPD ensures that BRD is well-known from all potential beneficiaries among the private sector in the field of renewable energy, who are reached, informed, and supported.

At private sector level, independently from the achievements of the project, some technical knowledge will remain within companies having received technical training to undertake the mini-grid feasibility studies as well as those supported for the development of bankable business plans.

At SACCOs level three measures that have been introduced within the project structure played a key role in ensuring sustainability. The creation of the guarantee fund has helped to solve the question of collaterals needed from a borrower before any lending agreement can be signed. The introduction of the deal of origination agents, by performing marketing tasks, especially collection of demand for SHS from households, put a foundation for the continuation of project results after the closure of PSPE project. Finally, the introduction of a fifth window under REF to tackle the

issue of affordability further enhances sustainability for SACCOs and solar companies retailing solar home systems.

3.1.3 How well has the intervention contributed to institutional and management capacity? What are potential risks? What measures were taken?

The policy and regulatory framework for off-grid renewable energy is stable in Rwanda. REG and MININFRA have clearly developed their policies and given guidance to the energy sector, including the off-grid subsector. The project is set in an institutional structure that is stable and will subsist after its closure. PSPE provides technical assistance and capacity building to BRD, that will continue its mission to provide access to finance for development in Rwanda to either financial institutions, individuals, or private companies beyond 2021, while energy is one of its top priority areas.

The project has undertaken several initiatives to ensure sustainability including but not limited to the following:

- Supporting the private sector in accessing REF,
- Bringing a wholesaler to the market to provide access to large quantities of affordable solar products, thus availing solar homes systems in Kigali for the Rwandan Market,
- Providing loans through SACCOs,
- Introducing and supporting SACCOs and Solar Company joint marketing of SHSs through the services of the deal origination agents,
- Technical support in tackling the issue of affordability through the provision of subsidies and productive use activities.

The only threat to the project sustainability is the change of the National Electrification Plan which significantly reduced the off-grid market in favor of the national grid. To address these challenges all stakeholders have been engaging in continuous dialogue to ensure the market is not disrupted by this change.

4 LEARNING

4.1 Lessons Learned

This section presents key lessons learned throughout the implementation of PSPE project as detailed below.

Lessons learned	Target audience
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 subsector and the same policy in Rwanda is highly needed for REF successful implementation and for the sustainability of achievements.	BRD, MININFRA, REG
Early dialogue with partner institutions and their ownership of capacity needs assessment increases project relevance and successful implementation of activities.	Enabel
Linking consultants' fees to the achievement of performance targets (cost plus incentives contracts) increases project efficiency, especially in the context of complex assignments.	BRD and Enabel
Private sector participation in project technical committee has proven very useful in adjusting activities to best fit company needs as beneficiaries.	BRD, EPD, EDCL, Enabel

Attaching a project's outcomes and performance targets onto another project does not allow for a proper evaluation of that project's performance as it lacks control over the achievements of the first project. Project indicators should be drafted considering resources available to achieve them as well as the wider context of project implementation. Instead, there should be strategy for partnership, but project performance indicators should be proportional to resources allocated to the same project.	Embassy, Enabel, MINECOFIN, BRD
Capacity-building needs arise during project implementation and the ability to strategically orient resources to these specific needs reinforces relevance and effectiveness of an intervention.	Enabel
Financial viability of mini-grid projects requires grant financing.	MININFRA, BRD, EPD, EDCL
Affordability gap to access off-grid solar solutions needs to be addressed at household and SME level for the acceleration of rural electrification.	EPD, BRD, EDCL
Issue of collaterals needs to be addressed for households and SMEs to be able to enter into loans agreements with SACCOs and financial institutions.	Enabel
Communication and awareness raising in rural areas are key to developing the off-grid solar market.	BRD, EDCL, EPD
Growth of the Rwandan SHS market requires involvement other players in supply chain (local small scale solar companies as retailer) instead of leaving the manufacturing, wholesale, importation, and retail to the international companies.	BRD, EPD, REG
Institutional strengthening of locally managed solar companies is required to increase the competition and market fairness.	EPD
In a risky market such as the Rwandan off-grid market, physical collateral traditionally required by banks push away companies from requesting loan and more modern collateral such as receivables, credit guarantee, insurance guarantee can de-risk the market as they motivate both bankers and sellers of SHS who want loans.	BRD, SACCOs, MFI, commercial banks (CB)
To sustain what was covered by PSPE project, after sale services done by OSCs should be focused on to fully support the beneficiaries to increase the lifetime of solar kits.	BRD, MININFRA
For the sake of increasing the sustainability of PSPE support, there should be another intervention intending to come up with productive user linked to the energy produced by SHS so that the households can cover the maintenance cost and be able to replace SHS kits that needs to be replaced.	BRD, MININFRA, EDCL, MINICOM.

4.2 Recommendations

This section summarises the key recommendations derived from the implementation of the PSPE project.

Table 6: Key Recommendations

Recommendation (Description of the decision to be taken)	Source (The source to which the recommendation refers)	Target audience
There is need to explore possibilities of designing a project with similar interventions to take over the matured PSPE project, to provide and coordinate technical assistance at BRD. This is recommended at a very special moment where, BRD is attracting various funds under the project approach, which however, requires special technical and management skills.	BRD strategic Plan	Government of Rwanda, development partners
It is recommended to initiate discussions with development partners who are still active in the off-grid sector to mobilize	Detailed Feasibility Study report, Business plans (BP)	BRD

resources to continue PSPE achievements such as subsidy DFS for	developed by OSCs, and	
mini-grid sites, Business plans developed by OSCs and the work of	DOA impact assessment	
DOA to support the demand collection.	report.	
After sale service should be the top priorities so that the	Most of households are	EPD, MININFRA,
households can keep enjoying the benefits of transitioning from	claiming the defect	and EDCL
using diesel lamps to SHS installation.	products of SHS.	
To ensure that there is sustainability of PSPE Project, there should	Basing on lifetime of solar	EPD, MININFRA,
be a mechanism of establishing productive use linked to the SHS	stand-alone system, it	and EDCL, and other
kits so that the households can generate the revenues which can be	seems in long run the	development partners
used for maintenance cost and replacing the damaged kits.	households might come	such as World Bank,
	back and using diesel.	and GIZ.
Continue the capacity building support to SACCOs to ensure high	PSPE mid-term review	BRD, WB
performance in REF window 1 implementation.		
Put in place a supply side support strategy to get enough quantity	NEP, REF	BRD and EDCL
of SHS products available in Kigali for the wholesale to small scale		
solar companies so as to avoid shortage of these one the Rwandan		
off grid market.		

PART 2: SYNTHESIS OF (OPERATIONAL) MONITORING

FOLLOW-UP OF DECISIONS BY THE PROJECT STEERING COMMITTEE (PSC)

This section summarizes the follow up on key decisions taken in line with the implementation of PSPE project. In this regard, the table below shows the dates when the decisions were made, the proposed actions and the status of implementation. All the 17 decisions have been successfully implemented.

The table below summarises the budget execution as of 31 December 2022:

-					
BUDGET TOTAL		Budget	Actual	Committement	Available
	Project	2,000,000	1.51.291	3,178	25551
50	The energy sector is able to provide sufficient, reliable and affordable energy for all Rwandans	1,569,359	1.354.755		214.603
20	BRD is able to analyze the violatity of neuropile energy project proposals	617.606	250,052	0	77.540
10 10	Technical assistance through an expert in renewable energy linancing	212.938	213,113	9	-175
101 102	Development of Tools for analysing renewable energy investments	200.457	123.935	0	76.518
to 103	Specific fraiting on onalyzing renewable energy investment	143.447	10.349	0	8
3 50	Technical assistance through an except in renewable enemy Risk Management	EG 764	139 653	0	650 1
0.5	BRD is able to proactively identify a pipolitie of potentially viable projects and assist the private sector to develop them.	951.753	814.690		137.063
102 01	Reach out to financial institutions and private companies	111.057	996 906	0	134,101
02 02	Capacity building among local companies to develop baricable business plans	119 934	EES 611	0	
02 03	Match making between local companies and international parties interested in renewable energy electrification and in promoting Women's entrepreneurship in the sector in Royand.	28 690	28 650	9	
102 101	Dedicated hands-on coach to SACCOs and DDA impact monitoring	32 062	23.161	0	2,981
		5.123	5.100	0	
ment tend live	General means program	(25.453)	TAC 100	3.178	20.52
TOTAL (Project)		2,000,000	LALDE	3.178	2859
	Co Management	1677.140	STE CIA.	0	197 766
	Regie	322.860	316 182	3.178	37.76

DISBURSEMENT RATE OF THE INTERVENTION

Details of PSPE disbursement are presented in the table below:

Table 7: Disbursement rate

Source of financing	Cumulated budget	Real cumulated expenses	Cumulated disbursement rate	Comments and remarks
Direct Belgian Contribution	Belgian 2,000,000.00 1,761,434.50	1,761,434.50	88%	12% of the unspent budget is already committed.
Contribution of the Partner Country	,	1	•	
Other source	_	•		

N.B. The full budget as at December 31,2022 is committed. Hence the balance after clearing all the commitments shall be zero.

PERSONNEL OF THE INTERVENTION

Table 8: Personnel of intervention of PSPE project

Personnel (title and name)	Gender (M/F)	Duration of recruitment (start and end dates)
National personnel put at disposal by the Partner Country:		
Ernest NIYIGENA, Project Officer	M	29th October 2018-Today
Jean Bosco HABIMANA, Project Accountant	M	5th November 2018-21st March 2022
Support personnel, locally recruited by Enabel		
Gratien GASABA, Intervention Manager	M	1st September 2018- 21st March 2022
Crispin BYUMA, Driver	M	1st November 1, 2018- 31st May 2020
International experts (Enabel):		
Meïssa G. NDIR, Finance Advisor	M	June 1, 2018- Today

Table 9: Summary of procurement

Tender type Tender title	Tender title	Estimated Cost	Actual costs	Estimated	Tendering	Status
		RWF		Cost EUR	Method	
Goods	Purchasing the Printer	1,000,000	RWF 1,360,000	845	R/RFQ	Closed
Services	Purchase of HOMER Software	9,161,890	0006 (JSD	7,949	R/RFQ	Closed
Individual Consultants	Renewable Energy Financing Expert	541,436,400	EUR 209,100	540,000	R/IOT	Closed
Individual Consultants	Hiring off-grid Private Sector Development hands on coach	120,666,000	FRW 42,000,000	110,500	R/NOT	Closed
	Consultancy who will be tasked to moderate the discussion about "				R/NOT	
Services	Women Entrepreneurship in	8,617,640	RWF 8,617,640	7,510.7		Closed
	Expert)					
Services	Detailed Feasibility Study of Minigrid	452,112,800	RWF 337,472,279	491,000	R/NOT	Closed
Services	PMP Training Service Provider	12,275,517	RWF 22,211,770	10,698.7	R/NOT	Closed
Individual	Hire a consultant who will facilitate the training of "Financial	29,738,700	USD 13,572.55	30,000	R/NOT	Closed
Consultants	Modelling (rrom the pool of Experts)) (2)		
Services	BRD Credit Management System	353,795,000	USD 181,180	160,421	R/NOT	Ongoing till the end of 2023.
Services	Conducting Feasibility Study of BRD rooftop	10,280,000	RWF 2,466,011	10,000	R/IOT	Closed
Services	Translation of the video of 14 minutes from English language to	500,000	495,600	527.9	R/RFQ	Closed
	Kinyarwanda Language.					

	Purchasing the goods such as water					
Goods	dispenser, Blinder, Blue pens,	308,400	RWF 308,400	304.84 R/RFQ	R/RFQ	Closed
	Envelopes, Self-ink stamps				,	
Goods	Purchasing the Projector	713,600	RWF 560,000	800	800 R/RFQ	Closed

10 EQUIPMENT

The list of equipment of PSPE Project as at December 31, 2022 are summarized in the table bellow

Table 10: Equipment

	DATE OF IDDATE: 21/20/2020						
å	TYPE OF ITEM	BRAND	SERIAL N°	ACQUISITION DATE	ACQUISITION VALUE	LOCATION	LOCATION CONDITION
1	Airmesh Highback Chair AM-01		N/A	14/09/2018	RWF 194,715	BRD OFFICE	G00D
Q	Workstation Table SAW 1200 (L) Wildpear Black		N/A	14/09/2018	RWF 131,355	BRD OFFICE	G00D
3	Workstation Table SAW 1200 (L) Wildpear Black		N/A	14/09/2018	RWF 131,355	BRD OFFICE	G00D
4	Hight Back Chair Fabric Sct -01		N/A	14/09/2018	RWF 72,033	BRD OFFICE	GOOD
5	Hight Back Chair Fabric Sct -02		N/A	14/09/2018	RWF 72,033	BRD OFFICE	G00D
9	Cantiliver Fabric Chair 7013DF		N/A	14/09/2018	RWF 59,322	BRD OFFICE	GOOD
7	Cantiliver Fabric Chair 7013DF		N/A	14/09/2018	RWF 59,322	BRD OFFICE	G00D
8	Cantiliver Fabric Chair 7013DF		N/A	14/09/2018	RWF 59,322	BRD OFFICE	G00D

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6	Cantiliver Fabric Chair 7013DF		N/A	14/09/2018	RWF 59,322	BRD OFFICE	G00D
91	Executive desk with side Unit and Mobile		N/A	14/08/2018	RWF 495,000	BRD OFFICE	G00D
=	Executive Filling Cabinet with two doors		N/A	14/08/2018	RWF 280,000	BRD OFFICE	G00D
12	Executive Filling Cabinet with two doors		N/A	14/08/2018	RWF 280,000	BRD OFFICE	G00D
13	UPS1500 VA		SMC1500I- 2U/AS1802141649	10/08/2018	RWF 435,000	BRD OFFICE	G00D
41	24"LCD LED Monitor		CNK8100LRG	10/08/2018	RWF 270,000	BRD OFFICE	G00D
15	Printer XEROX Work Center 615	AOday	9970057470	41/07/2018	RWF 795,000	BRD OFFICE	GOOD
7	Water Dispenser	VERION	2/4/05//05	8100/01/01	RWF 250,000	BRD OFFICE	GOOD
, ,		- GE	SDN1989C68	29/12/2022	EUR 1,259	BRD OFFICE	G00D
2 61	Laptop with powercable Table- Printer support		STATE OF THE OWNER	14/12/2018	RWF 18,000	BRD OFFICE	G00D
20	Printer	CANNON	(91)RMI.84014	14/12/2018	RWF 1,000,000	BRD OFFICE	Q00D
21	Laptop with Power cable	DEL	3L5GWT2	14/03/2020	581 EUR	BRD OFFICE	G00D
3	Projector	EPSON	X4GB9403497	11/02/2020	RWF 475,000	BRD OFFICE	0000