# Climate Investment Funds

[APPROVAL BY MAIL] RWANDA: RENEWABLE ENERGY FUND PROJECT (WORLD BANK) (SREP)--XSRERW058ARESPONSE FROM THE WORLD BANK

#### Response to comment/question 1,1a,1b,1c,1d,1e:

The Financing Plan included in the SREP Rwanda Investment Plan (IP) showed tentative co-financing amounts based on estimates and understanding of the off-grid market resulting from preliminary consultations conducted during the preparation of the IP as well as information available at the time and shared by the Government of Rwanda (GoR) during the Rwanda IP preparation process. The Financing Plan proposed for the REF Project was elaborated based on more thorough and in-depth analysis of the off-grid market, taking into account market stage and maturity, absorptive capacity of market participants, enabling environment for private sector investment, current and projected donor programs, etc. However, please note that co-financing amounts included in the REF project financing plan are conservative for two reasons (i) presented co-financing amounts do not reflect the revolving nature of the REF facility; the REF funding will be provided as loans to investors and households with tenors of 3-7 years, so it will be effectively recycled. Co-financing amounts consider only the impact of first round of REF funds, noting that additional co-financing may be attracted once the REF funds are recycled; and (ii) GoR envisions that the REF facility would become the main mechanism for directing funds for offgrid rural electrification, attracting additional co-financing from other sources – development partners, private sector, etc. – beyond the initial 5-year implementation period of the REF Project. The recycling of REF funds and effective realization of the GoR's vision about the REF facility would lead to levels of co-financing that are more aligned with the contributions specified in the Rwanda IP.

MDB and private sector co-financing. The Rwanda IP anticipated MDB co-financing of up to US\$30 million. Additional efforts will be made to attract co-financing from MDBs and other sources of financing during project implementation. The processing of IDA co-financing will be executed independently from the disbursement status of SREP funds. In fact, IDA co-financing will be processed as additional financing for the REF Project, i.e. before SREP funds are fully disbursed. Please also note that the initial learning phase of the REF is expected to be completed 1-2 years after the REF implementation starts (depending on how fast the facility will commence), hence the committed IDA18 funds will become available well before the SREP funds are consumed. The rationale is that SREP will provide the initial funding that will serve for the start-up and early operation/learning of the REF Facility, while co-financing from IDA, Government, and other development partners will be used to supplement SREP funds once the learning stage is over so that the scaling-up of the development effectiveness of the facility occurs faster and in most effective way. Finally, the reduction in leveraged co-financing from the private sector is not directly related to minigrid investments, but rather based on the reasons cited above.

SREP leverage factor. The conservative approach that was adopted to estimate co-financing for the REF Project reflects directly on the relatively low SREP leverage factor. However, it is expected that the SREP leverage factor is likely to increase due to the recycling nature of REF funds and additional co-financing attracted to the facility.

#### Response to comment #2:

It is important to highlight that ultimately the results achieved under the REF project will depend on market demand for the different types of technologies (e.g., off-grid solar systems, mini-grids). Current (nascent) state of Rwandan off-grid market, consultations with key stakeholders in the energy sector leading to the preparation of the Rwanda IP as well as during project preparation, together with lessons learned from World Bank experience in the off-grid sector, stressed the importance of keeping the design of the REF facility flexible (first-come-first-served model) so that it is able to respond efficiently and capitalize on any off-grid market developments/ response to the facility. A flexible design of the REF facility entails that funds are not earmarked or pre-allocated to any particular financing window. The expected results from the REF Project will ultimately depend on the actual market demand for off-grid solar and mini-grid investments. In this spirit, the outcomes and outputs anticipated for the REF Project were estimated based on current stage of the off-grid market, absorptive capacity of market enablers, and

potential uptake for different technologies within the implementation period of the project. Furthermore, the overall targets anticipated in the Rwanda IP were also provisional and developed following the same rationale.

### Response to 2.a:

Refer to response "2" above. Ultimately, the installed capacity of mini-grids under the REF Project will depend on the actual market demand for mini-grid investments. We agree about the importance to promote productive uses of electricity, noting that both stand-alone solar and mini-grid systems can facilitate productive uses of electricity (e.g., lighting for small businesses/loads, lighting for studying, phone and lantern charging stations, barber shops, tailor shops, etc.). The promotion of productive uses will be considered within the scope of activities of the Technical Assistance component. The proposed awareness campaign for off-grid markets will include discussions about benefits and opportunities from off-grid rural electrification. It is also expected that SACCOs will facilitate access to financing for the purchase of equipment encouraging productive uses of electricity, including by rural micro-businesses often headed by women.

# Response to 2b:

Refer to response "2" above. The increase in off-grid connections is based on the assumption that market demand for off-grid solar systems will be larger than for mini-grid investments. Ultimately, the number of off-grid connections will depend on the actual market demand for different technologies (e.g., off-grid solar, mini-grids), both of which will be promoted by the facility.

## Response to 2.c:

Refer to responses "2", "2-a", and "2-b" above.

### Response to 2.d:

Refer to responses "2", "2-a", and "2-b" above, noting that ultimately the electricity generated under the REF Project will depend on the actual market demand for the different technologies (e.g., off-grid solar, mini-grids). Also, it should be noted that the key objective of the REF Project is to increase electricity access in Rwanda through off-grid technologies. While Rwanda would benefit from increased electricity output from renewable energy sources, the main benefits will derive from increasing the number of Rwandan households and businesses which will gain access to off-grid electricity services through solar systems and mini-grids. REF facility is expected to drastically increase off-grid access in less connected, poorer districts and especially in those that are not currently connected to the transmission network.

## Response to 2e:

Refer to responses "2" above. The final number of beneficiaries will depend on the actual market demand for different technologies (e.g., off-grid solar, mini-grids).

# Response to 2f:

Refer to response "1" above in regards to the conservative approach adopted to estimate co-financing for the REF Project, which directly affects the SREP leverage factor and expected results achieved under the project. SREP support will be essential to help establish and operationalize the REF facility, which will become the main mechanism for directing funds to the off-grid sector, supporting the achievements of the national off-grid targets under the Rural Electrification Strategy. The proposed SREP-funded REF project will help facilitate and fast-track the sustainable development of the off-grid sector by improving the enabling environment for private sector investment, strengthening the overall capacity of country

systems, and facilitating affordable off-grid electricity services to consumers, which are crucial for ensuring the sustained and long-term transformation of the sector.

#### Response to 3, 3a:

The SREP grant and loan will be blended to decrease the cost of funding and make the loans affordable to final consumers/beneficiaries (both households and businesses). This is necessary because the institutions that are involved in the lending process need to impose spreads in order to cover the related lending cost and financial risks, which they have to bear in their entirety. Loans will be extended in domestic currency in order to eliminate the currency risk for the final consumers/beneficiaries.

MINECOFIN has to impose a spread to compensate for the currency risk that they are taking on. The Development Bank of Rwanda (BRD) has to impose a spread to cover the cost for REF administration and management. An additional spread will be imposed by the financial intermediaries (SACCOs and commercial banks for the wholesale window and BRD for the direct lending window) to cover their operating cost and the credit risk. The lower cost of SREP financing will allow MINECOFIN, BRD and the other financial intermediaries to cover their cost and risks and offer loans to the final consumers (households and businesses) at more affordable terms. To ensure that the lower cost of SREP financing is passed through to the final consumers, in their applications for the line of credits SACCOS and banks will be required to indicate the range of their expected spread. If the indicative range is considered too high by BRD, they would have the right to reject the application.

In addition, the long tenor of SREP funding will allow loans to intermediaries and financial beneficiaries to be much longer than currently available in the market. The longer tenor and lower cost of finance is expected to stimulate the demand and to reduce the credit risk.

#### Response to 3b:

SREP concessional financing is essential to support the establishment of the REF facility and mobilization into the off-grid electricity sector of all key market enablers, including SACCOs, banks, mini-grid developers, and locally-registered off-grid solar companies. Increasing off-grid energy access in Rwanda requires addressing customer affordability and access to finance constraints. SREP support to operationalize the REF facility will help overcome these key barriers, while seizing on the use of existing country systems to ensure the sustainability of the approach. Specifically, as of now SACCOs have limited experience in issuing loans for solar products given the lack of understanding of the solar market and technologies, as well as liquidity constraints. Banks have stringent requirements for large amounts of collateral besides liquidity constraints. Mini-grid developers are faced by lack of adequate commercial financing and limited grant funding to improve the affordability of electricity connections. Solar companies have not been able to secure enough capital for expanding their businesses in Rwanda and hence catalyze off-grid market growth; they do not have access to local currency loans and have to bare full currency risk when borrowing in hard currencies hence offering more expensive products. The proposed SREP-funded project is therefore designed to effectively address these constraints, incentivizing the different market enablers to facilitate off-grid market development.

No market distortions are introduced. The model used is "first-come-first-served", so there is no prior allocation to any particular institution. The model includes both SACCOs and banks, introducing competition for the available funds. Any institution present in the market and interested to receive REF funding will be welcome, providing that it meets the eligibility criteria. The eligibility criteria require that the institution is in good standing with its supervisory authority, in good financial condition and has the capacity to appraise and manage the related risks. Given that there is virtually no financing for offgrid solar products at the moment – and if so, it is costly and scarce – no crowding out of current funding will take place. Interest rates will also not be subsidized to avoid market distortions through artificially low interest rates.

Direct lending from BRD will be available for higher risk clients who are not able to get the necessary funding from banks. For mini-grids investors, which are higher risk clients, if they do not effectively meet the banks requirements, direct lending will be available from BRD. If the solar companies are not able to get the financing from banks, direct borrowing from BRD may also be approved at a later phase of REF implementation. Since in these cases, companies were not able to successfully tap the private market, direct lending will not introduce distortions. Rather it should show that providing such funding can be profitable, crowding in private capital in the medium-long term.

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The REF Review Committee comprising Govt. representatives will meet a few times per year to evaluate REF implementation details and assure that all needs are addressed and there are no market distortions introduced.

## Response to 4a:

The increase in technical assistance support reflects Government of Rwanda's position to use REF to incentivize household and small businesses demand for off-grid electricity services focusing on the existing country systems, primarily through SACCOs. The expectation is that SACCOs would be able to stimulate demand for off-grid solar systems rapidly and that off-grid solar companies would respond fast by bringing in the required equipment to the country. Based on the assessment of SACCOs' capacity conducted during the preparation of the project, it is expected that significant capacity building and technical assistance support will be required to ensure that SACCOs have the necessary and adequate sectoral knowledge and implementation capacity. Higher than anticipated capacity building and technical assistance support will be required to enhance the project implementation capacity of the Project Implementing Unit at BRD (implementing agency). However, this capacity building of SACCOs will ensure sustainability of the REF facility, as well as ensure sustainability and transformative impact of the expected outcomes in the long run since this component will facilitate successful partnerships between financial institutions and private sector which has been lacking so far and is one of the reasons why the market has not picked up.

#### Response to 4b:

Refer to response "1" above, noting that (i) AfDB has expressed interest in exploring pipeline development and co-financing opportunities at later stages; (ii) EnDev co-financing covers program activities until 2018, while additional co-financing may be available beyond 2018 depending on minigrid market uptake and donor support; and (iii) a portion of BTC co-financing was diverted to other priorities in the energy sector.

# Response to 4c:

Technical assistance and capacity building support activities are listed in the Project Appraisal Document (PAD), noting that the level of detail being requested, including associated budget, is usually not included in the document. That said, the Bank team will work closely with other donor-funded programs that provide technical assistance support to seize on complementarities and avoid duplication of activities. At mid-term review of the REF Project, an assessment could be conducted to analyze the potential reallocation of funding from Component 2 (technical assistance) to 1 (line of credit) if deemed necessary.