
Results Based Financing (RBF): Stage 2

Rural Remote and Vulnerable Solar Market Development in Lake-Central Zones of Tanzania

RBF Fund Stage 2: Operational Guideline

February.2019

1. Background & Introduction

1.1 SNV Tanzania & Renewable Energy

SNV Netherlands Development Organization is an international NGO with a trusted presence in Tanzania for more than 40 years. Currently SNV is working throughout mainland Tanzania in three main sectors of Agriculture; Water, Sanitation and Hygiene (WASH); and Energy (RE).

The overall goal of SNV Tanzania RE sector is to contribute to improve the livelihoods of the rural and peri-urban people in Tanzania by accelerating the dissemination and use of renewable energy products and services. SNV Tanzania is involved in three renewable energy sub-sectors including Improved Cook Stoves; and Solar Energy. The SNV RE team currently comprises of 12 staff spread over six locations of Arusha, Mwanza, Dodoma, Sumbawanga, Kigoma and Dar es Salaam, working with an extensive network of local partners.

In 2014, SNV began active implementation of a project in **Results Based Financing (RBF)** for Pico-Solar PV lighting applications in the Lake Zone. The project initially concentrated on the application of a temporary financial product in mainstream banking as an RBF Fund of € 1.0 Million that serves to assist the Private Sector in developing the market for Pico-Solar products in isolated rural areas. In 2016 the RBF Fund grew to a total value of € 2.2 Million with expanded outreach to markets in the Lake and Central Zone Regions. As of close 2018, the RBF Fund has transacted € 1.89 Million to the private sector supporting verified delivery of nearly 80,000 solar products to rural Lake and Central Zone consumers.

For the period of 2019-2020, the RBF Fund will re-open with €1.5 million EUR in RBF incentives available to the private sector. This second stage of the RBF Fund for 2019-20 (RBF Stage 2) will be based on the foundational principles and structures as successfully developed and adapted during RBF program operations in 2014-18 with strategic redesign of key financing elements to ensure RBF incentives are more sensitively tuned to sustained market development in vulnerable and remote Lake and Central Zone markets.

The 2019-2020 RBF program will continue to be driven by three main sets of actors: (i) a Financial Institution hosting the RBF Fund and as represented by Tanzania Investment Development Bank (TIB), (ii) (Pico) Solar Import-Suppliers, and (iii) Rural Agents and Consumers. SNV's main role in the program will be to broker relations amongst actors that ensure fair, transparent and verifiable financial transactions throughout management of the fund.

The RBF initiative for solar in Tanzania is financed through the Energising Development (EnDev) initiative with the support of the UK's Department for International Development (DfID).

1.1 What is Results Based Financing?

The [Results Based Financing \(RBF\)](#) concept is about developing and testing viable business models that employs financing as a performance incentive rather than a traditional lump sum loan payment. The key feature is **payment upon delivery**. Private participants are expected to take the **full risk until the moment of delivery** of the contracted results. RBF instruments are generally characterised by the following principles:

- *Disbursement of funds is contingent on the delivery of pre-determined results (outcomes or closely related outputs);*
- *Results are broadly defined to allow for product & service innovation by allowing flexibility to service providers;*
- *Verification acts as the trigger for disbursement;*
- *Incentives are non-discriminatory, in that all eligible service providers are able to competitively participate*

The goal of the RBF is "to overcome market failures constraining private sector delivery of distributed renewable energy systems providing modern energy services to the poor". RBF funding is intended to reduce or mitigate commercial market failures, however not in the sense of large scale capacity building or policy support, but by **providing financial incentives to the private sector to overcome typical, but temporary, market development risks**.

1.2 What is Pico –Solar and Small Solar Home Systems?

In recent years, there have been tremendous advancements in the development of small scale or entry level solar products that provide solutions to the typically low wattage energy needs of rural households (1-2 rooms, small radio, and cell phone). These 'Pico-Solar' applications allow for pre-electrification of 1-15 Watts and can be part of the solution for the many people that will remain without electricity in the near future¹.




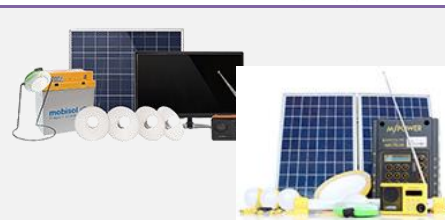
IFC - Lighting Africa (IFC-LA) describes Pico-Solar as; 'Off-Grid lighting products or systems that are stand-alone, rechargeable and can be installed, assembled and used easily without requiring assistance from a technician. These products are affordable, typically costing less than €70-80, with some, retailing at €10 or less. They typically have three key components:

- i. electricity source, most commonly a small 1-15W solar panel;
- ii. a modern rechargeable battery, increasingly lithium-ion; and
- iii. a modern lantern or lamp, usually with an LED (light emitting diode) bulb.'

¹ What difference can a PicoPV system make? GIZ, EnDev, May 2010

A growing range of [IFC-LA approved solar products](#) are further entering into larger plug and play solar home system (SHS) applications providing 10-350W of energy³.

Table 1: Overview Pico and Small Solar Home System (SSHS) Types

| | | |
|--|---|--|
| <p>i. Basic Task Light: Typical Cost €14 (Price Range €7- €20)</p> | <p><i>The products in this range consist of a portable LED lamp and a small panel that is either separate to the lantern or contained directly in the lantern body itself. More frequently, these devices include a means for charging a single cell phone daily. They typically produce less than 2 watts of electricity sufficient for 4-6 hours of light with 25-90 lumen output that generally (on a single full day charge) exceeds a kerosene lantern.</i></p> |  |
| <p>ii. Light w. Charging Service: Typical Cost €35 (Price Range €20- €50)</p> | <p><i>Similar to the task light products, these units also provide a means for additionally providing charging services to small electronic devices (most often a cell phone or small DC radio). They typically produce around 5 watts of energy with enough light for 5-7 hours of lighting at 100-200 lumens per day with enough energy remaining to fully charge 1-2 cell phones per day.</i></p> |  |
| <p>iii. Small/Multi-Room Light Kits: Typical Cost €100 (Price Range €50-€200)</p> | <p><i>These products are equipped to provide overhead lighting via multi-LED lamps and charging use for small electronics (phone charging, radios, etc.). All of the necessary components for the system are contained in the box (panel, wiring, lights) and installation can often be done independently by the consumer. They typically produce less than 10 watts of electricity with light of +200 lumens sufficient for a minimum of 2 rooms for 6-8 hours on a single day's charge.</i></p> |  |
| <p>iv. Solar Home Systems (Plug and Play)²: Typical Cost €500 (Price Range €200-€800, 10-350W)</p> | <p><i>Solar home system kits (10-350W and above) have increasingly entered the Tanzanian market since 2013. These larger systems offer additional appliances, such as fans, radios, and TVs. Despite the higher price for these units, the advent of pay-as-you-go (PAYGO) technology that enables consumers to pay for a product in small increments over time via mobile phone has made these systems increasingly affordable. The systems are typically in a 'plug and play' set up (all components contained in a pre-defined system package) and installation can often be done by a firm trained technician in less than 1 hour. In addition to appliances they typically provide 8-16 hours of daily lighting at 300-500 lumens.</i></p> |  |

Off-grid lighting products in the Tanzanian market at the present time can broadly be characterized into 4 main product groups including:

Market intelligence by SNV shows strong demand for solar systems with more than 35-40% of rural households indicating solar as their most preferred energy technology option for immediate purchase. Household expenditures on kerosene, candles, batteries and cell phone charging are quite high in Tanzania compared to other parts of Africa (€10 per month on average). Taken together with the relatively low prices (compared to traditional full solar home systems) of the latest generation of reliable pico-solar products, this allows for sound return-on-invest and very short pay back periods (i.e. time until actual kerosene & battery charging savings equal up-front investment/purchase price) of 3-7 months for solar lanterns; 7-18 months for small solar home systems; and 18-30 months with instalment payments via PAYGO systems.

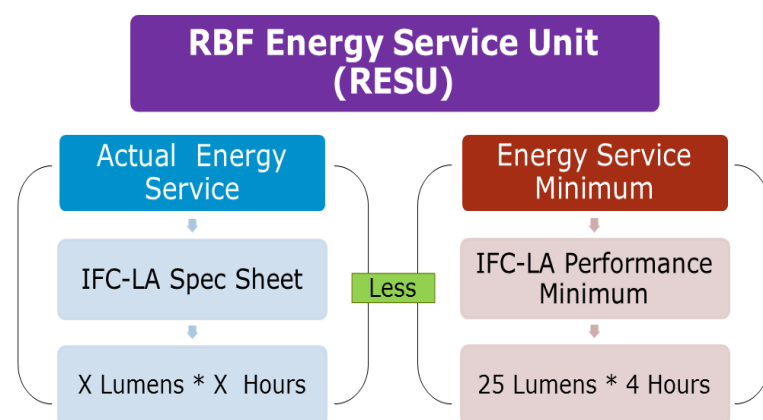
² <https://www.lightingafrica.org/lighting-global-extends-support-to-solar-home-system-kits/>

³ <https://www.lightingglobal.org/resources/>

2. RBF Product Incentive Valuation

2.1 RBF Energy Service Units (RESU)

The overall rationale and intent of the RBF Fund in the Lake and Central Zones of Tanzania is to increase sustainable rural consumer access and availability to pre-electrification *energy services* (basic lighting and communication) via pico and small solar home system solar technologies. In achieving this goal, the RBF is conceived as generating a functional means for suppliers to bolster their investments in solar distribution chain development by rewarding private sector players with incremental sales and performance incentives.



The RBF incentives available to firms will be earned per unit of approved and verified solar product sold-subscribed to rural consumers in Lake and Central Zones of Tanzania. The value of the RBF incentive per solar product is based on the brightness (lumens) and duration (runtime per solar day of charge) of light that the product is capable of providing. The foundation for RBF Product Incentive calculations is determined by the 'actual energy service units' (lumen-hour per solar day output) of solar product at peak setting as described in historical and current product [Quality Assurance specifications from IFC-LA](#)⁴ and meeting Tanzania Bureau of Standards (TBS) solar product quality provisions.

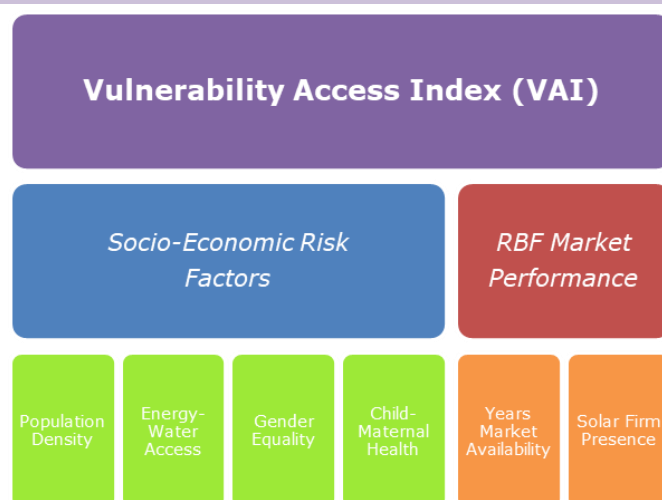
As the RBF for Solar in the Lake and Central Zones of Tanzania is a competitive private sector fund, the program will maintain and use a 'minimum energy service unit' threshold that acts as the starting point for the assigning of monetary values for RBF incentives. Following Lighting Africa standards, the minimum energy service unit threshold is set according to the [Minimum Performance and Standard Targets of IFC-LA as set in October, 2013](#). The minimum energy service unit value is 100 lumen-hours per solar day (25 lumen output, 4 hour run time/day solar charge).

The energy service units available for composing the RBF Product Incentives per product are therefore based on the actual energy service units of the product less the minimum energy service units. The resulting difference is considered as the RBF Energy Service Units (RESUs) as applicable for a specific Lighting Africa approved product.

2.2 RESU Rate

Each RESU is assigned an annual monetary value as defined by the RBF program in the form of Euro cents (RESU Rate). The RESU Rate is calculated to ensure that the most underserved regional markets in the Lake and Central Zones ultimately receive the highest levels of RBF incentives per product. The extent of regional market development is defined by applying a *Vulnerability Access Index (VAI)* that ranks and scores socio-economic risk factors in equal measure against past RBF market performance firms during the period of 2014-18 (see Annex 1 for details).

Each RESU is considered to have a base value of 0.01 Euro cents that is applied against VAI Level of the regional market where the product has been sold. Thus, the final basis for the RBF Product Incentives per eligible solar product is calculated as the number of RESUs of the product multiplied by the RESU Rate.



A maximum of five (5) VAI levels for the Lake and Central Zones have been determined to ensure that market incentive values are highest in regions with the greatest level of socio-economic vulnerability and the lowest level of RBF market activity by firms. Conversely, regions with the lowest VAI scores (low socio-economic vulnerability and firm market activity) will receive the lowest incentive values. VAI levels are time sensitive in nature and will decrease by one (1) level at opening of each calendar year⁵ in which the stage 2 of the RBF Fund is operational.

RBF Product Incentive values are further balanced by a maximum threshold or 'RBF Incentive Cap'. The RBF Incentive Cap has been put in place to ensure the intent of RBF incentives as a tool to reasonably offset, not fully absorb, costs associated with developing distribution chains (i.e. rural sales agent engagement). Value of the RBF Product Incentive Cap is 10.00 EUR per VAI Level of the regional market where the product is sold.

⁴ For products that are in process of undergoing IFC-LA certification, please contact SNV for criteria for provisional inclusion to the RBF Product roster pending finalization of IFC-LA procedures. Instances of dedicated Productive Use (PU) lighting systems will be assessed for incentive valuation rating by the RBF program upon review of the specific product offering of the firm.

⁵ Pending annual review of the RBF Fund

2.3 RBF Incentive Rate Scheduling

Annual RBF Rates for RESUs and the RBF Incentive Cap used to determine the RBF Product Incentive will be guided by the following annual schedule for eligible rural sales areas for the period 2019:

| RESU Rate: Regional Schedule 2019 | Mwanza | Geita, Shinyanga | Kagera, Simiyu, Mara | Tabora, Singida | Kigoma, Dodoma |
|-----------------------------------|--------------|------------------|----------------------|-----------------|----------------|
| VAI Level | 1 | 2 | 3 | 4 | 5 |
| RESU Base / Cap Value (EUR) | 0.01 / 10.00 | 0.01 / 10.00 | 0.01 / 10.00 | 0.01 / 10.00 | 0.01 / 10.00 |
| RESU Rate (EUR) | .01 | .02 | .03 | .04 | .05 |
| RBF Incentive Cap (Euro) | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |

Pending review of 2019 RBF Fund performance, a scheduled reduction of one (1) VAI level in all regional markets will be applied to the RBF Fund in 2020. Annual RBF Rates for RESUs and the RBF Incentive Cap used to determine the RBF Product Incentive will be guided by the following annual schedule for eligible rural sales areas in 2020:

| RESU Rate: Regional Schedule 2020 | Mwanza | Geita, Shinyanga | Kagera, Simiyu, Mara | Tabora, Singida | Kigoma, Dodoma |
|-----------------------------------|--------------|------------------|----------------------|-----------------|----------------|
| VAI Level | 0 | 1 | 2 | 3 | 4 |
| RESU Base / Cap Value (EUR) | 0.01 / 10.00 | 0.01 / 10.00 | 0.01 / 10.00 | 0.01 / 10.00 | 0.01 / 10.00 |
| RESU Rate (EUR) | 0.00 | .01 | .02 | .03 | .04 |
| RBF Incentive Cap (Euro) | 0.00 | 10.00 | 20.00 | 30.00 | 40.00 |

The RESU Rate and the RBF Incentive Cap will be reviewed bi-annually by the program in relation to the actual performance and use of the RBF Product Incentives and associated RBF Fund in the market by the private sector. The RBF program fully reserves the right to alter the RESU Rate and RBF Incentive Cap values at any time during the operation of the RBF Fund. In instances wherein RBF Rates as described in Table 1 are revised *downwards*, all parties qualified to submit claims to the RBF Fund will be notified in writing a minimum of 3 months (12 weeks) before any revisions are enacted.

The 2019 RBF Product Incentive values for [presently posted IFC-LA Product](#) and as per conditions described above and relative to the date of the guideline herein are further outlined in RBF Incentive Schedule at conclusion of section 2. SNV will update the RBF Incentive Schedule in the months of January, April, July and October throughout the lifespan of the RBF Fund and as per IFC-LA Product web postings newly added within quarterly periods.

2.4 Extreme Vulnerability (EV) Bonuses

Recognizing regional markets in Tanzania within the operating areas of Stage 2 of RBF Fund that are impacted by humanitarian crisis (or "humanitarian disaster")⁶, RBF Product Incentives will further be eligible to earning Extreme Vulnerability (EV) bonuses. Stage 2 of the RBF Fund will directly apply an EV Bonus of 20% to each associated product incentive earned in *regional* markets internationally recognized as actively by humanitarian crisis.

As of opening of Stage 2 of the RBF Fund in 2019, the EV Bonuses will be available with immediate effect in Kigoma Region that is presently experiencing an ongoing refugee crisis. Should other regional markets eligible under the RBF Fund during the course of its operations in 2019-20 experience internationally recognized humanitarian crisis-disaster, the EV Bonus as described above will be applied with immediate effect from date of the Claim Submission Window in which the crisis occurred.

2.5 RESPOND Market Incentives (RMI)

Beginning in 2018, SNV has actively undertaken implementation of the **RESPOND**⁷ program (financed by BMZ-GIZ with EnDev backstopping) to increase clean energy access in *districts* that are impacted by the refugee crisis in Kigoma Region. In support of accelerating access to quality solar products in these uniquely impacted local markets, SNV is hosting a dedicated fund of €80,000.00 in the form **RESPOND Market Incentives (RMI)**. Each RMI has a flat rate value of €2.00 per solar system and are awarded upon evidenced sales in Kasulu and Kibondo districts and to refugees in the Nyarugusu and Nduta camps of Kigoma, Region. The total cumulative value of RMIs awarded to a single firm may not exceed €26,000.00 (i.e 33% of the total dedicated fund value, in line with EnDev RBF limits).

Firms participating in the RBF Fund (2019-20) and meeting verified sales conditions of the RBF program are immediately eligible to the earning of RMIs in addition to any and all RBF Product Incentives and Bonuses. RMI eligible sales will be identified during sales reporting of the firm to the RBF Fund and paid directly by SNV to the firm upon completion of sales verification necessary to releasing Consumer Product Incentive Instalments (as described in section 4.2 below). Specific terms and conditions to RMIs will be further agreed between the firm and SNV in writing upon the successful admission of the firm to the RBF Fund 2019-20.

⁶ [A humanitarian crisis \(or "humanitarian disaster"\)](#) is defined as a singular event or a series of events that are threatening in terms of health, safety or well-being of a community or large group of people. It may be an internal or external conflict and usually occurs throughout a large land area. Local, national and international responses are necessary in such events. Each humanitarian crisis is caused by different factors and as a result, each different humanitarian crisis requires a unique response targeted towards the specific sectors affected. This can result in either short-term or long-term damage. Humanitarian crises can either be natural disasters, man-made disasters or complex emergencies. In such cases, complex emergencies occur as a result of several factors or events that prevent a large group of people from accessing their fundamental needs, such as food, clean water or safe shelter. Examples of humanitarian crises include armed conflicts, epidemics, famine, natural disasters and other major emergencies.^[4] If such a crisis causes large movements of people it could also become a refugee crisis.

⁷ Renewable Energy Service & Products as an Opportunity in National and Displaced (RESPOND): Markets of Kigoma

SNV: Results Based Financing (RBF) - Stage 2

Rural Remote and Vulnerable Solar Market Development

RBF Fund Operational Guideline, 2019-2020



| RBF Product Incentive Schedule | | January 2019 | | A | B | C | D | E | F. RBF Product Incentives (EUR) | | | | |
|---|------------------------------------|--------------|--------------------------|--------------------|-------------|----------|---|---|---------------------------------|-------------|-------------|-------------|-------------|
| | | | | (A x B) | (B x C x A) | (C x D) | | | (E x 0.01 | (E x 0.02 | (E x 0.03 | (E x 0.04 | (E x 0.05 |
| Manufacturer | Product Name | Lumens | Hours (day solar charge) | Actual Lumen-Hours | LA Minimum | RESUs | | | (≤ 10 Euro) | (≤ 20 Euro) | (≤ 30 Euro) | (≤ 40 Euro) | (≤ 50 Euro) |
| All Solar Lights | All Solar Lights | 520 | 2.3 | 1,196.0 | 100 | 1,096.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Anji DaSol Solar | Solar Lamp-SSL200 | 220 | 3.1 | 682.0 | 100 | 582.0 | | | 5.82 | 11.64 | 17.46 | 23.28 | 29.10 |
| Amped Innovation PBC | WOWsolar60-v2 | 360 | 5.9 | 2,124.0 | 100 | 2,024.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | WOW solar TV | 480 | 113.0 | 54,240.0 | 100 | 54,140.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Azuri Tech. | 15W Quad 600 | 570 | 7.5 | 4,275.0 | 100 | 4,175.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | 10W Quad Solar Home System | 300 | 8.0 | 2,400.0 | 100 | 2,300.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Barefoot Power Ltd. | Go 150 | 280 | 5.0 | 1,400.0 | 100 | 1,300.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Go 250 | 66 | 11.0 | 726.0 | 100 | 626.0 | | | 6.26 | 12.52 | 18.78 | 25.04 | 31.30 |
| | Sun Bell (2.0) | 110 | 5.3 | 583.0 | 100 | 483.0 | | | 4.83 | 9.66 | 14.49 | 19.32 | 24.15 |
| | Sun Bell Smart Y | 95 | 6.2 | 589.0 | 100 | 489.0 | | | 4.89 | 9.78 | 14.67 | 19.56 | 24.45 |
| Bright Products | Sun Bell Smart (PAYG) | 110 | 4.8 | 528.0 | 100 | 428.0 | | | 4.28 | 8.56 | 12.84 | 17.12 | 21.40 |
| | Sun Turtle | 30 | 6.4 | 192.0 | 100 | 92.0 | | | 0.92 | 1.84 | 2.76 | 3.68 | 4.60 |
| | Sun Bell 2.0Y | 90 | 6.3 | 567.0 | 100 | 467.0 | | | 4.67 | 9.34 | 14.01 | 18.68 | 23.35 |
| | Bright Move | 100 | 5.1 | 528.0 | 100 | 428.0 | | | 4.28 | 8.56 | 12.84 | 17.12 | 21.40 |
| | Bright Move Smart | 100 | 6.8 | 680.0 | 100 | 580.0 | | | 5.80 | 11.60 | 17.40 | 23.20 | 29.00 |
| BBOXX LTD | BBOXX Home | 470 | 5.0 | 2,350.0 | 100 | 2,250.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Bio Lite | Solar Home 620 | 370 | 4.2 | 1,554.0 | 100 | 1,454.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| CAA Int. GmbH | Solar lantern | 160 | 8.0 | 1,280.0 | 100 | 1,180.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | A2 | 27 | 4.0 | 108.0 | 100 | 8.0 | | | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 |
| | S3 | 35 | 4.0 | 140.0 | 100 | 40.0 | | | 0.40 | 0.80 | 1.20 | 1.60 | 2.00 |
| | S30 | 60 | 3.0 | 180.0 | 100 | 80.0 | | | 0.80 | 1.60 | 2.40 | 3.20 | 4.00 |
| | S100 | 65 | 4.0 | 260.0 | 100 | 160.0 | | | 1.60 | 3.20 | 4.80 | 6.40 | 8.00 |
| | D30 | 360 | 6.0 | 2,160.0 | 100 | 2,060.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | D34 | 430 | 6.0 | 2,580.0 | 100 | 2,480.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| d.light Design | X740 | 1,000 | 7.7 | 7,700.0 | 100 | 7,600.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | X850 | 1,200 | 6.2 | 7,440.0 | 100 | 7,340.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | D330/ D330R | 420 | 4.0 | 1,680.0 | 100 | 1,580.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | S3B | 35 | 4.0 | 140.0 | 100 | 40.0 | | | 0.40 | 0.80 | 1.20 | 1.60 | 2.00 |
| | S 501 | 120 | 7.6 | 912.0 | 100 | 812.0 | | | 8.12 | 16.24 | 24.36 | 32.48 | 40.60 |
| | S500 | 230 | 3.5 | 805.0 | 100 | 705.0 | | | 7.05 | 14.10 | 21.15 | 28.20 | 35.25 |
| EcoZoom | Multi Light | 420 | 4.1 | 1,722.0 | 100 | 1,622.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Pico Solar Home Syst. 3000 | 97 | 7.6 | 737.2 | 100 | 637.2 | | | 6.37 | 12.74 | 19.12 | 25.49 | 31.86 |
| | Pico Solar Home Syst. 7500 | 170 | 13.0 | 2,210.0 | 100 | 2,110.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Fosera | Mobile One | 210 | 4.3 | 903.0 | 100 | 803.0 | | | 8.03 | 16.06 | 24.09 | 32.12 | 40.15 |
| | LSHS 10500 | 500 | 29.0 | 14,500.0 | 100 | 14,400.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Freeplay Energy | Radiance solar lantern | 230 | 2.9 | 667.0 | 100 | 567.0 | | | 5.67 | 11.34 | 17.01 | 22.68 | 28.35 |
| | Sun King Eco | 32 | 5.8 | 185.6 | 100 | 85.6 | | | 0.86 | 1.71 | 2.57 | 3.42 | 4.28 |
| | Sun King Pro 2 | 160 | 5.5 | 880.0 | 100 | 780.0 | | | 7.80 | 15.60 | 23.40 | 31.20 | 39.00 |
| | Sun King Pro All Night | 110 | 6.9 | 759.0 | 100 | 659.0 | | | 6.59 | 13.18 | 19.77 | 26.36 | 32.95 |
| | Sun King Charge/ Pico 50 | 45 | 4.7 | 211.5 | 100 | 111.5 | | | 1.12 | 2.23 | 3.35 | 4.46 | 5.58 |
| | Sun King Home 60 / Easy Buy | 305 | 5.6 | 1,708.0 | 100 | 1,608.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Greenlight Planet | Sun King Home 120 | 590 | 5.1 | 3,009.0 | 100 | 2,909.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Sun King Pro X Plus | 250 | 3.7 | 925.0 | 100 | 825.0 | | | 8.25 | 16.50 | 24.75 | 33.00 | 41.25 |
| | Sun King Pro 300 | 310 | 7.5 | 2,325.0 | 100 | 2,225.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Sun King Pro 400 (EB) | 400 | 5.7 | 2,280.0 | 100 | 2,180.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Sun King Pro 200 | 200 | 5.6 | 1,120.0 | 101 | 1,019.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Sun King Home 40Z | 190 | 5.0 | 950.0 | 100 | 850.0 | | | 8.50 | 17.00 | 25.50 | 34.00 | 42.50 |
| | Sun King Boom/ Easy Buy | 160 | 6.6 | 1,056.0 | 100 | 956.0 | | | 9.56 | 19.12 | 28.68 | 38.24 | 47.80 |
| Havells India Ltd | Sun King Pro Easybuy/Pro X | 160 | 5.5 | 880.0 | 100 | 780.0 | | | 7.80 | 15.60 | 23.40 | 31.20 | 39.00 |
| | Enviro SL36 | 30 | 4.9 | 147.0 | 100 | 47.0 | | | 0.47 | 0.94 | 1.41 | 1.88 | 2.35 |
| JUA Energy | Home Mate-H1/H1G | 430 | 5.5 | 2,365.0 | 100 | 2,265.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Free Light L1 | 35 | 5.7 | 199.5 | 100 | 99.5 | | | 1.00 | 1.99 | 2.99 | 3.98 | 4.98 |
| Lagazel | Kalo3000 | 130 | 5.7 | 741.0 | 100 | 641.0 | | | 6.41 | 12.82 | 19.23 | 25.64 | 32.05 |
| | Kalo1500 | 102 | 6.7 | 683.4 | 100 | 583.4 | | | 5.83 | 11.67 | 17.50 | 23.34 | 29.17 |
| | Lagazel Kalo 600 | 95 | 1.0 | 95.0 | 100 | -5.0 | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Charge2200 | 77 | 9.6 | 739.2 | 100 | 639.2 | | | 6.39 | 12.78 | 19.18 | 25.57 | 31.96 |
| | Charge4400 | 77 | 12.0 | 924.0 | 100 | 824.0 | | | 8.24 | 16.48 | 24.72 | 32.96 | 41.20 |
| Little Sun | Little Sun Diamond | 29 | 4.8 | 139.2 | 100 | 39.2 | | | 0.39 | 0.78 | 1.18 | 1.57 | 1.96 |
| | Little Sun V 4 | 29 | 4.7 | 136.3 | 100 | 36.3 | | | 0.36 | 0.73 | 1.09 | 1.45 | 1.82 |
| M-KOPA Solar | M-Kopa 4 | 240 | 6.6 | 1,584.0 | 100 | 1,484.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Mobilis | Mobilis Bright Future 200 W | 5,700 | 14.0 | 79,800.0 | 100 | 79,700.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Solar Television System | 1,200 | 7.9 | 9,480.0 | 101 | 9,379.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Mpowered Inc. | Luci Original | 54 | 2.9 | 156.6 | 100 | 56.6 | | | 0.57 | 1.13 | 1.70 | 2.26 | 2.83 |
| | Luci Emrg | 41 | 3.2 | 131.2 | 100 | 31.2 | | | 0.31 | 0.62 | 0.94 | 1.25 | 1.56 |
| Namena Solar Light Company | S100 Solar Light | 18 | 6.1 | 109.8 | 100 | 9.8 | | | 0.10 | 0.20 | 0.29 | 0.39 | 0.49 |
| Newlight Africa Limited | Heya Happy Home Solar Light System | 230 | 4.3 | 989.0 | 100 | 889.0 | | | 8.89 | 17.78 | 26.67 | 35.56 | 44.45 |
| Ningbo ZhengZheng Electric Appliance Companyv. Ltd. | Solar Lighting System | 360 | 3.0 | 1,080.0 | 100 | 980.0 | | | 9.80 | 19.60 | 29.40 | 39.20 | 49.00 |
| | Multi 300-XL | 308 | 2.9 | 893.2 | 100 | 793.2 | | | 7.93 | 15.86 | 23.80 | 31.73 | 39.66 |
| Niwa - Next Energy | Uno 50 | 19 | 4.9 | 93.1 | 100 | -6.9 | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Office 200 X2 | 200 | 3.9 | 780.0 | 100 | 680.0 | | | 6.80 | 13.60 | 20.40 | 27.20 | 34.00 |
| | Energy 50 | 460 | 41.0 | 18,860.0 | 101 | 18,759.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Nova Lumos, Ltd. | Solar Power Station | 1000 | 22.0 | 22,000.0 | 100 | 21,900.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Nuru Energy | Nuru light NL3 | 52 | 4.0 | 208.0 | 100 | 108.0 | | | 1.08 | 2.16 | 3.24 | 4.32 | 5.40 |
| | Solar Smart All-In-One/ Helder kit | 140 | 8.0 | 1,120.0 | 100 | 1,020.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| NRS Enlight FZE | Enlight Essential | 67 | 4.8 | 321.6 | 100 | 221.6 | | | 2.22 | 4.43 | 6.65 | 8.86 | 11.08 |
| Offgrid Sun | Energy Station Plus | 310 | 10.0 | 3,100.0 | 100 | 3,000.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | Energy Station Basic | 310 | 6.1 | 1,891.0 | 100 | 1,791.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | MB2 - 090 | 92 | 5.1 | 469.2 | 100 | 369.2 | | | 3.69 | 7.38 | 11.08 | 14.77 | 18.46 |
| | MB2 - 200 | 210 | 4.4 | 924.0 | 100 | 824.0 | | | 8.24 | 16.48 | 24.72 | 32.96 | 41.20 |
| | MB 220 | 242 | 7.8 | 1,887.6 | 100 | 1,787.6 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | MB2 - 290 | 302 | 5.0 | 1,510.0 | 100 | 1,410.0 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| | MB2 - 380 | 394 | 4.9 | 1,930.6 | 100 | 1,830.6 | | | 10.00 | 20.00 | 30.00 | 40.00 | 50.00 |
| Omnivoltaic / Smarter Grd | OvCamp HS1-36 LB1122 | 660 | 6.1 | | | | | | | | | | |

3. RBF Fund Admission and Eligible Sales Reporting

3.1 Supplier Admission

The total value of all RBF product incentives that are available to the private sector shall be held in an RBF Fund hosted by TIB Development Bank. The value of the Stage 2 RBF Fund for *RBF Product Incentives* is €1,500,000. The RBF Fund has opened as of January 1st, 2019 from which date all approved solar product sales can be recorded and claimed as eligible for RBF Product Incentives by qualified suppliers in the program. The RBF Fund will be considered closed to accepting eligible supplier claims as of July 31st, 2020⁸ or when the *full* RBF Stage 2 Fund (€1.5 Million in Product Incentives) is fully depleted⁹.

There will be no limit to the number of firms participating in the RBF Fund during the 2019-20 period. Any firm wishing to engage in the RBF Stage 2 in the 2019-20 period will be required to provide and/or evidence to SNV:

- (i) A completed 'SNV Pre-qualification for Professional-Technical Service Providers Questionnaire' that outlines background and status of operations in Tanzania, overview of product and service models, track record and/or intended market activity;
- (ii) Copies of all requested statutory documentation proving legal validity of private sector activity in Tanzania;
- (iii) Pass an onsite due-diligence inspection to ensure solar product authenticity and firm operations
- (iv) Proof of holding a valid business account with TIB Development Bank.

Firms may submit their applications to participate in Stage 2 of the RBF Fund at any time throughout the period of March, 2019 through April, 2020. Applications will be assessed for compliance to admissions standards by SNV-TIB on a bi-monthly basis throughout the RBF Fund stage 2 operations.

RBF Stage 1 (2013-18) participating firms are eligible to re-apply for renewed agreement to RBF Stage 2 for the period of 2019-2020. These applicants are subject to intake documentation processes as those of newly incoming firms to the RBF Fund and in lieu of on-site due diligence may substitute evidence of possessing a successful verification track record from their RBF Fund activity in the 2014-18 period. RBF Stage 1 firms are further required to submit a full register of all customer sales in the Lake and Central Zone during the period of 2014-2018.

SNV will establish an advisory group with representation of TIB, Tanzania Renewable Energy Association, World Bank-IFC Lighting Africa and the Government Tanzania President's Office of Regional Administration and Local Government. The intent of the advisory group will be to review the performance and compliance of the eligible firms in the RBF Fund and assess actual RBF Fund usage in vulnerable market development.

As the RBF Rural Remote and Vulnerable Solar Market Development in Lake-Central Zones of Tanzania is a competitive private sector fund, the program as coordinated by SNV will maintain and use the right, when necessary, to alter, amend or cease any terms, conditions and/or activities of the RBF Fund outlined herein. In such instances, participating suppliers in the RBF Fund will be furnished with notice a minimum of 30 days prior to the date that amendments to the RBF Fund are implemented.

3.2 Market Eligibility

End customer sales of solar systems that are qualified to earn RBF product incentives will only be on approved solar products to consumers residing in any *rural districts* in the:

- **Lake Zone** Regions of Kagera, Geita, Mwanza, Shinyanga, Simiyu or Mara Regions
 - Excluding the urban municipalities Mwanza City (Nyamagana & Ilemela Districts), Bukoba, Musoma, and Shinyanga; the Town Councils of Geita and Kahama
 - Transacted in the period of 1.January.2019 to 15.July.2020
- **Central Western Zone** Regions of Kigoma, Tabora, Singida or Dodoma
 - Excluding the urban municipalities of Kigoma, Tabora, Singida and Dodoma;
 - Transacted in the period of 1.January.2019 to 15.July.2020

End retailers-agents of the supplier may be based and/or operate in any of the aforementioned urban municipalities and town councils. However, only the documented and verified sales of 'urban' retailers to consumers residing in eligible rural markets (as defined above and submitted in the RBF Claim of the supplier) shall qualify for the earning of RBF Product Incentives.

Market eligibility is further refined for sensitivity and responsiveness to levels of firm activity and maturity in the RBF Fund. Once any participating firm has received €250,000.00 in total RBF incentive payments (cumulative RBF Stage 1 & Stage 2, 2013-2020), the individual firm will be immediately ineligible to earning RBF Product Incentives in the top five (5) performing energy service sales districts of the RBF Fund (2013-18 period). After twelve (12) months of sales activity in the Stage 2 RBF Fund (2019-2020) that have been exclusive of the top 5 performing sales districts, the individual firm will be further ineligible to earning RBF Product Incentives in the top three (3) performing sales regions of the RBF Fund (2013-18 period).

Table 3: RBF Fund Top Performing Markets (2013-18)

| Energy Service Sales Rank | 1 | 2 | 3 | 4 | 5 |
|---------------------------|--------|-------|-----------|--------|----------|
| District Rank | Geita | Magu | Sengerema | Kahama | Misungwi |
| Regional Rank | Mwanza | Geita | Kagera | - | - |

⁸ Claim initiation is to be considered as the Prior to submission to SNV-TIB by suppliers of a draft softcopy of their claim for a pre-screening to assess data integrity and composition (as per Sec 4.2 – FN 19)

⁹ In any instance of RBF Fund closure, participants will be provided 12 weeks' notice (i.e. 1 sale quarter) of the fund closing date, and associated payment modalities, in which to prepare their final RBF claim.

3.3 Sales Claim Reporting

Upon admission to the RBF Fund, end consumer sales reports (RBF Claims) will be accepted from all active firms on scheduled Claim Submission Windows at two month intervals (see section 4.5 Claim Submission Windows for schedule details). The RBF Claim of the firm may be inclusive of any qualified and documented sales to rural end consumers that have occurred no more than six (6) months before the date on which the RBF Claim is submitted by the supplier to TIB.

The RBF Claim submitted by the supplier must contain, at minimum, the following information:

Table 4: RBF Claim Reporting Requirements

| Supplier Level | Retailer-Agent Level | Customer Level |
|---|--|--|
| <i>Supplier Contact</i> -Name, Phone Number | <i>Retailer Contact</i> -Name, Phone Number | <i>Customer Contact</i> - Name, Phone Number* |
| <i>Supplier Location</i> -District, City/Town | <i>Retailer Location</i> -District, Ward, Village/Town | <i>Customer Location</i> -District, Ward, Village/Town |
| <i>Total Product Sales Claimed</i> -Claim Period -#Units & Type, Wholesale-Retail Price | <i>Total Products Sold</i> -Sales Period -#Units & Type, Wholesale- Retail Price | <i>Product Purchased</i> -Date of Purchase -# Units & Type, Price* |

**When possible to collect and willingly provided by consumers*

The RBF Claim submitted by the supplier must be composed of the following documentation:

- (i) **Product Sales Sheet:** Customer sales log in soft *and/or* hardcopies composed per Retailer detailing all customer and retail level information
- (ii) **RBF Claim Cover:** Summary sheet in hard *and* soft copies composed by the supplier that details all Retailer Level and Supplier Level information

An RBF Claim shall therefore be composed of one (1) customer sales log for each retailer-agent and one (1) RBF Claim Cover that acts as a summary sheet detailing total sales by unit type.¹⁰ Upon acceptance to the RBF Fund, the RBF Program shall provide the supplier with a proposed template for the Product Sales Sheet and RBF Claim Cover that can be used to compose their subsequent RBF Claims. For each participating firm, the RBF program will further establish a dedicated and secure online submission portal via Microsoft SharePoint for transfer and storage of relevant sales and RBF Fund activity data.

The RBF Claim must be inclusive of any qualified and documented sales to rural end consumers that have occurred no more than six (6) months before the date on which the RBF Claim is submitted by the supplier to TIB. Should the supplier fail to submit an RBF Claim for six (6) consecutive months without valid explanation and/or evidenced sales activity underway, the firm will be considered to have voluntarily surrendered their RBF Fund Admission and immediately forfeit any pending RBF payments.

The maximum allowable RBF Ceiling (total value of all RBF Claims paid per supplier over the RBF Fund Stage 2 period in 2019-2020 and as limited by the available RBF Fund balance at the point of supplier RBF Claim submission) shall not exceed €500,000.00.

¹⁰ In PAYGO oriented operations, the supplier must provide the (i) Claim Cover, (ii) full subscriber roster from date of intake to the RBF Fund to date of claim submission (iii) full roster of active agents and/or payroll (iv) stock intake records

4. RBF Sales Verification and Claim Payment

4.1 RBF Sales Claims Verification

Upon the submission of each RBF Claim submitted by the supplier to TIB hosting the RBF Fund as described above, the RBF program will initiate an RBF Claims Verification process. The verification will be under the coordination of SNV and is to be completed no longer than 30 working days¹¹ from close of the RBF Claim Submission Window in which the claim of the supplier is received.

The first step of the RBF Claim Verification will be performed by SNV, TIB and third party verifying agent(s) as an initial check of the paper trail validity of the submitted claim (correct number tallies, sales of approved units to correct consumer locations, etc)¹². Upon the conclusion of the paper trail check of the RBF Claim, SNV-TIB will produce a preliminary calculation of the total value of RBF Incentives earned. This will form the basis of a provisional RBF Statement that is provided by TIB to the associated supplier of the RBF Claim.

Upon issuance of the Provisional RBF Claim Statements, SNV-TIB and third party verifying agent(s) will tally the sum of all solar systems sold by all firms reporting in the specific Claim Submission Window and the total value of their associated RBF sales incentives. The total number of systems sold will be used to define the forthcoming statistically relevant sample size for onsite and phone verification of all reported sales to consumers received in the Claim Submission Window. The verification sample will then be apportioned amongst each firm in the Claim Submission Window as a direct percentage of the value of the individual supplier claim value relative to the value of all RBF claims received.

The final verification sample rates per firm if necessary will be adjusted to ensure both a minimum and maximum of agent and consumer verifications as per the RBF Claim of the supplier are conducted as outlined in table 5 below. Retailer and consumer selection will be conducted in full independence from the supplier and include both phone surveys and onsite inspections by third party verification agents. Main points of the retailer verification will be to verify eligible solar products are actually in possession of agents, prices to which they availed, and company services received / consumer services rendered by the agent. Consumer verification will be delivered to verify possession and use of products, actual sales details, status of warranty/after sales services, etc.

Table 5: RBF Claim Verification Sample Thresholds

| Verification Method | Solar Supply Chain Actor | | | |
|---------------------|--------------------------|------|----------|------|
| | Retailer-Agent | | Consumer | |
| | Min. | Max. | Min | Max. |
| Phone Survey | 25% | 50% | 5% | 10% |
| Onsite Inspection | 10% | 25% | 2.5% | 5% |

Supplier RBF Claims will be deemed to have failed verification process when greater than 20% of agent and 10% of consumer sales verification at both onsite and via phone prove false. Upon failure of verification, the supplier will be suspended from the program and all credits for RBF funds will be held until a second physical inspection is held. Should the supplier pass the second inspection, they will be re-admitted to the RBF program and all pending funds will be released at 50% of the associated Product Incentive Values composing the RBF Claim. Upon failure of the second inspection, the supplier will be fully disqualified from the program.

4.2 RBF Payments

Upon completion and acceptance of the 3rd party RBF Claim verification by SNV, TIB will calculate the full value of the now verified RBF Claim (as based on the annual regional rates of the RBF Product Incentives and number of approved solar products verified as being sold). The supplier will be provided a Final RBF Claim Statement that details the total verified value of the RBF Claim and values paid. The value of the RBF claim will then be credited to the specific supplier and released in two (2) instalments¹³ to be paid in Euros in the form of:

- (i) **Consumer Product Sales (CPS)** instalment equalling 80% of the total product incentive value and paid immediately upon successful consumer product sales verification (as described in section 4.1 above);
- (iii) **Sustained Market Investment (SMI)** instalment of no more than 20% of the product incentive value and paid no sooner than two (2) months upon confirmation of agent and customer service benchmark achievements (product, delivery and after sales).

Determination of the SMI instalment will commence two (2) months from the date of the Final Claim Statement (i.e. release date of the CPS instalment). At this juncture, agents and consumers as contained in the associated RBF claim verification will be re-engaged in product and service satisfaction surveys. The product and service surveys will include the use of [Acumen Lean Data](#) methodologies to determine [Net Promoter Scores \(NPS\)](#) of the individual firm. The NPS of the firm will then be considered relative to the average NPS of all participating RBF firms in the associated claim submission window to determine the NPS Performance Rate (N-PR) of the specific supplier RBF

¹¹ Excluding instances wherein reporting variances and/or claim sales volumes necessitate additional time investments for the completion of valid verification exercises.

¹² Prior to submission to TIB, suppliers may send a draft softcopy of their claim to SNV for a pre-screening to assess data integrity and composition

¹³ Claims received in the last Claim Submission Window (CSW) will be paid in full value as a single instalment as per the CSW calendar detailed in section 6., table 6.

claim in the form of a percentage¹⁴. The N-PR will then be applied to the credited value of the SMI instalment to determine the final balance of the RBF claim that is to be paid¹⁵ by TIB to the supplier.

Upon the release of the final SMI instalments of the RBF Claim, the supplier will be further be required to participate in an RBF claim debriefing with representative of both TIB and SNV so as to further enable a means for all parties bound in the RBF agreement with the supplier to transparently address all matters arising regarding the specific claim, CPS and SMI instalment verification findings and operation of the RBF Fund in general. During the debriefing session, review of the suppliers operations relative to reported sales (shipment received, stock on floor, reported product movement through RBF) and updating to legal-statutory documents (registration, licences, etc.) will be undertaken. The quality of stock will also be reviewed to assure that only approved solar units are being applied for in RBF Claims.

At the juncture of each RBF payment released, the supplier will be furnished with an update to their Final RBF Claim Statement that details their verified RBF Claim values paid including details of Instalment Payments released and pending. At the close of the statement a reference will be included to the performance of the supplier relative to current and cumulative claims in the RBF Fund 2019-20, and the total remaining balance of the RBF Fund as per the most recently closed RBF Claim Submission Window.

All payments will be calculated in Euros and transferred to the identified receiving account residing in Tanzania and held by the RBF supplier. The receiving account of the supplier must reside within a dedicated business account with the RBF Fund host - TIB Development Bank. Payments of RBF claim instalments to the supplier's accounts at TIB shall incur no transfer-receiving fees.

4.4 Claim Verification & Payment Flow

RBF Claims, Verification and Payments are not mutually exclusive activities. They are delivered concurrently and are dependent upon one another within a clear cycle to ensure that a level playing field is maintained for all participating firms. Considered as a whole and assuming full compliance at all levels, claim submission and verification entail the following flow of activities:



¹⁴ An N-PR of 100% is awarded when the NPS score is equal to or higher than the average NPS of all RBF firms. The N-PR goes down if the firms NPS is lower than average.

¹⁵ SMI Instalment values paid may not exceed the 20% of the associated value of the RBF Claim.

SNV: Results Based Financing (RBF) - Stage 2

Rural Remote and Vulnerable Solar Market Development

RBF Fund Operational Guideline, 2019-2020



4.5 Claim Submission Windows (CSW)

As described in section 3.3 above, verification services coordinated by SNV and TIB is to be completed no longer than 30 working days from close of the **RBF Claim Submission Window (CSW)** in which the claim of the supplier is received. CSWs represent the sales period in which the supplier must submit at minimum their Consumer Product Sales sheets to SNV-TIB in order to initiate processing of their RBF Claim. They occur on a bimonthly basis throughout the lifespan of the RBF Fund in 2019-20. Each CSW is open for a period of two (2) weeks in which eligible firms may provide sales data to SNV-TIB. Submission of sales data outside of the CSW will be accepted for review, but will not be processed through verification and payment cycles until the next CSW.

It is therefore very important to understand and observe the potential turnaround time entailed from CSW dates in equal measure to their associated payment turnarounds for Consumer Product Sales Instalments (CPS-I) and Sustained Market Investment Instalments (SMI-I). As such, to assist in limiting invalid and/or delayed claim submissions a calendar of main benchmark and milestone events for consideration in the RBF is included in Table 6 below.

Table 6: RBF Benchmarks & Milestones Calendar¹⁶

| | 2019 | | | | | | | | | | | | 2020 | | | | | | | | |
|----------------------|---------------|-----|--------------------------|--------------------|-----|---------------|--------------------|---------------|---------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|-----|--------------------|-----|----------------|
| RBF Element | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept |
| RBF Fund | RBF Fund Open | | Intake Assess | | | Intake Assess | | Intake Assess | | Intake Assess | | Intake Assess | | Intake Assess | | Intake Assess | | | | | RBF Fund Close |
| CSWs | | | CSW1: 15-30.Mar & Apr | CSW2: 15-30.May | | | CSW3: 15-30.Jun | | CSW4: 15-30.Sept | | CSW5: 15-30.Nov | | CSW6: 15-31.Jan | | CSW7: 15-31.Mar | | CSW8: 15-31.May | | CSW9: 15-31.Jul | | |
| CPS - Instal. | | | | CSW1 CPS-I | | | CSW2 CPS-I | | CSW3 CPS-I | | CSW4 CPS-I | | CSW5 CPS-I | | CSW6 CPS-I | | CSW7 CPS-I | | CSW8 CPS-I | | CSW9 CPS-I |
| SMI - Instal. | | | | | | | CSW1 SMI-I | | CSW2 SMI-I | | CSW3 SMI-I | | CSW4 SMI-I | | CSW5 SMI-I | | CSW6 SMI-I | | CSW7 SMI-I | | CSW8 SMI-I |

**Assuming Verification completed within 30 workings days (45 calendar days) of CSW Close*

The calendar further outlines events relating to private sector admission to the RBF Fund. Firm may apply at any time to participate in the RBF Fund with applications being accepted at any time from February, 2019 through March, 2020. Applications received will be reviewed to confirm eligibility of the applicants during bi-monthly Intake Assessments by SNV-TIB. Each supplier admitted to the fund will further have the right access pre-RBF planning under the provision of SNV. Pre-RBF planning will be undertaken to review RBF documentation requirements, verification standards-procedures; supplier strategy and fund payment scheduling (i.e. cash flow planning).

¹⁶ Specific final dates to be confirmed with eligible partners upon successful contracting to the RBF program.

Annex 1: Vulnerability Access Index (VAI)

RBF Stage 2 incentives will continue to have their basis in value employing RBF Energy Service Unit and RBF Incentive Cap logics. However, the annual Euro cent value of each RESU (RESU Rate) and Euro value RBF Incentive cap will be defined corresponding to level of regional market vulnerability (see Section 2.2 RESU Rate for further details). These rates are defined by applying a **Vulnerability Access Index (VAI)** that aims to increase consistent consideration in the Lake and Central Zone Regions of both (i) Vulnerability as based on official public socio-economic data¹⁷ (ii) Market Performance of the RBF in relation to activity of firms and duration of incentive availability.

At its core, the calculation of the VAI is based on harmonizing both Socio-Economic Risks (SER) and RBF Market Performance (RMP) factors that have been expressed by firms as directly influencing their decision making in market investments and/or have proven to play critical roles to success of their underlying business models over the period of 2013-18.

VAI Calculation Framework

| Socio-Economic Risk (SER) Factors | Population | Population density and solar sales volumes | Vulnerability | Sum total of all average SER factor categories. | VAI Level | Total Vulnerability / Total Access |
|--------------------------------------|--------------|---|---------------|---|-----------|------------------------------------|
| | Energy | Clean cooking (biomass use) and electrification rate | | | | |
| | Gender | Disparity male to female headed Hh, literacy & employment | | | | |
| | Health | Infant (under 5) and maternal mortality | | | | |
| | Water | Rural water supply, sanitation (toilets) & piped water access | | | | |
| RBF Market Performance (RMP) Factors | Activity | No. RBF firms undertaking operation in region 2013-18 ¹⁸ | Access | Sum total of RMP factors. | | |
| | Availability | No. years RBF market available in region. | | | | |

Application of the framework above has distinguished five (5) VAI Levels in the Lake and Central Zones. These have been integrated to RBF Product Incentive valuations (section 2.2) to ensure that incentive values are highest in regions with the greatest level of socio-economic vulnerability and the lowest level of active uptake of RBF. Conversely, regions with the lowest VAI scores (low socio-economic vulnerability and high RBF uptake) will receive the lowest incentive values. Taken as a whole, the VAI can further provide a discreet roadmap to broad market context for use by current and incoming firms to the RBF Fund in 2019-2020.

VAI Levels (2019): Lake and Central Zone Regions

| Eligible Sales Region | Socio Economic Risks | | | | | Vulnerability | RBF Market Performance | | RBF Access | VAI Level |
|-----------------------|----------------------|--------------------------|-----------------|--------------------------|--------------------|---------------------------|---------------------------------|-------------------------------------|-----------------------|-----------------------|
| | Population | Energy | Gender | Health | Water | | Activity | Availability | | |
| Mwanza | 1.0 | 1.0 | 5.3 | 5 | 6.0 | 18.3 | 8 | 4 | 12.0 | 1 |
| Shinyanga | 5.0 | 6 | 6.3 | 4.5 | 2.0 | 23.8 | 7 | 4 | 11.0 | 2 |
| Geita | 2.5 | 4.5 | 5.3 | 4.0 | 6.2 | 22.5 | 5.5 | 4 | 9.5 | 2 |
| Mara | 4.5 | 5.0 | 5.7 | 8.0 | 8.3 | 31.5 | 5 | 4 | 9.5 | 3 |
| Kagera | 2.5 | 6.0 | 2.7 | 9.0 | 4.0 | 24.2 | 3 | 4 | 7.0 | 3 |
| Simiyu | 5.5 | 9.0 | 7.7 | 1.5 | 4.8 | 28.5 | 4 | 4 | 8.0 | 3 |
| Singida | 8.5 | 6.0 | 5.7 | 5 | 7.0 | 32.2 | 5 | 2 | 7.0 | 4 |
| Tabora | 8.5 | 5.0 | 6.3 | 6.5 | 6.0 | 32.3 | 4 | 2 | 7.0 | 4 |
| Dodoma | 8.5 | 4.0 | 5.0 | 6.5 | 5.3 | 29.3 | 3 | 2 | 5.0 | 5 |
| Kigoma | 8.5 | 8.5 | 5.0 | 5.0 | 5.3 | 32.3 | 1 | 1 | 2.0 | 5 |
| VAI Factor Metrics | Density, Solar Sales | Cooking, Electrification | Employ-Literacy | Child-Maternal Mortality | Supply, Sanitation | Total Socio-Economic Risk | Firms Reporting Sales (2013-18) | Yrs. RBF Market Available in Region | Firm Presence, No Yrs | Vulnerability/ Access |

¹⁷ As available via documentation of the Government of Tanzania's National Bureau of Statistics (NBS)

¹⁸ Firm withdrawal and/or activity in humanitarian impacted markets are valued at half values