



RESIDENTIAL SOLAR WATER HEATING PROGRAM (SOLARWANDA PROGRAM)



Supporting Organizations

The WorldBank (GEF)

and

Nordic Development Fund (NDF)

Introduction & Program Description

In general, the territory of Rwanda has an estimated solar field of yearlong regular sunshine from 3.8 to 4.5kWh/m²/day. Today, satellite data shows that the territory of Rwanda is in the global zone where the daily global radiation (annual average) is between 5 and 6 kWh/m²/ day. The average solar radiation is about 4.5 kWh / m² / day for most of the country, and it can reach 6 kWh / m² / day in the central, southern and south-eastern regions. The average sunshine time per day is 8 hours, which makes solar energy in Rwanda economically viable.

In the context of stimulation the usage of renewable energy and energy efficiency equipments where they are the least cost and sustainable options, the Government of Rwanda has obtained a grant from the Global Environmental Facility Trust Fund (World Bank/GEF) of an amount of US\$ 4.5 Million for the Rwanda Sustainable Energy Development Project (SED Project) and a grant from the Nordic Development Fund of 4 million Euros for development of solar water heaters market in Rwanda (SolaRwanda Program).

The SolaRwanda Program is scheduled for a period of four years (2012-2015). During this period the **SolaRwanda** program will be supported by GEF-World Bank Fund and the Nordic Development Fund (NDF) through financing the SolaRwanda Program management and by providing subsidies and loans to EWSA customers for the purchase of SWHs.

The main objectives and targets of SolaRwanda Program is to promote the widespread use of solar water heaters in residential sector through financial incentives, and other support measures, with a goal of installing 12,000 SWH by the end of the year 2015 with a total estimated yearly saving of 23,328 Mwh after installation of all these 12,000 SWH system.

The use of solar energy, which is a renewable energy source, will assist us in reducing the load of pressure on the national electricity grid while increasing energy supply mix as a renewable source of energy.

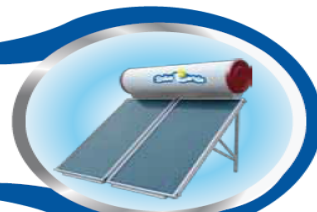
Guide to Selecting and Installing a Solar Hot Water Heater under SolaRwanda Program

The selection of a SWH is a matter of private transaction between the Householder and the SWH Eligible Supplier. The Householder must ascertain that the SWH being installed is the one ordered and that it conforms to the specifications of the quotation obtained from the Supplier.

After the installation is made the Householder must ascertain that he receives a warranty certificate from the supplier. The warranty must be at least for ten years for the collector, five years for the storage tank and two years for the piping and security systems. If the receipt would also represent the warranty, the Householder should ascertain that full details of the warranty are given.

The Householder should also seek, if not mentioned in the warranty certificate, the contact details of whom to call for any technical problems with operation of the SWH system.

Use a Solar Water heater and save on your electricity bills. You can now own one using subsidies and credit facilities available from EWSA SolaRwanda Programme. Available in 200 litres and 300 litres



Criteria for Financial Assistance

- Be a householder located in Rwanda.
- Have electricity and water services subscriptions with EWSA. The available water pressure should not be less than 2 bars. In case the available pressure is below 2 bars, the customer may install a small water pump to increase the available pressure to a level allowing SWH to function properly.
- Not have any arrears on electricity or water services towards EWSA.
- Sign a 'commitment form' to qualify for the SolaRwanda Program which includes the coordinates of the householder and selected supplier to install the SWH. The application form will indicate also the total cost for installing the system.
- Pay an application fee of an amount of 30,000 Rwf to EWSA
- Not acquire a second SWH for the same property under the EWSA-SolaRwanda Program. If the client has two properties and two separate EWSA electricity meters they can install one SWH in each property under the SOLARWANDA program.

Steps for Application to EWSA Residential Solar Water Heaters Financing Scheme

The application to SolaRwanda financing scheme is implemented in the following steps:

1. Confirm that you meet the SolaRwanda Program requirements.
2. Contact one or more of EWSA's solar water heater program participating suppliers.
3. The eligible supplier will determine if your home meets the minimum conditions for installation of solar water heater (solar radiation access, water connection with sufficient pressure and collector sitting/orientation location).
4. The eligible supplier will provide program and product information, as well as an application form for the SolaRwanda Program financing scheme.
5. The eligible supplier will provide you with a written proposal of quotation.
6. Complete the subsidy and loan application form and submit it to EWSA SolaRwanda Program Unit through the selected eligible contractor.
7. When the application is approved, EWSA will recommend to the selected supplier to make installation of the SWH to the customer, the customer will arrange with the selected eligible supplier the date to install the SWH system.
8. EWSA inspects the system after installation.
9. The customer starts to repay the loan obtained from EWSA when the SWH system installation passes inspection and testing.

Documents required from the Client

- The application form duly filled in and signed by the Householder and his/her spouse in conjunction with the supplier. The application form will be found soon on the website of EWSA at the offices of the eligible suppliers.
- The quotation in original from the selected registered supplier
- A copy of the National Identity Card of the Householder or his/her spouse.

Financing Mechanisms for SWH systems under SolaRwanda Program

Solar Thermal Water Heating (also called domestic hot water) is a simple, reliable, and cost-effective technology that harnesses the sun's energy to provide for the hot water needs of homes. EWSA allows you a subsidy on the system cost! This is the best time to reap the numerous benefits of EWSA domestic solar water heating program for water heating needs at household.

Cost of SWH Installation

The cost of a SWH system varies depending on the manufacturer of the system and the conditions of the house in which the SWH is to be installed. The SWH systems eligible under SolaRwanda Program are of higher quality and satisfy the requirements of the international standards on SWH systems (EN 12975 and EN 12976) as per the Solar Keymark Certification Organization.



Based on the current market prices of SWH systems, the following prices are predictable:

S/N	SWH Capacity	Prices (USD)
1	200 Litres	1,200-1,400
2	300 Litres	1,400-1,800

Available Incentives by EWSA SolaRwanda Program to customers until 5th December 2013

A customer wishing to acquire a SWH under the EWSA SolaRwanda Program will be given a subsidy and loan depending on the size of SWH to be installed at his premise. The amount of subsidy is fixed as follows:

- (1) The customer benefits a subsidy from EWSA SolaRwanda Program fixed as: Rwf 186,000 and Rwf 279,000 for solar water heaters with capacities of 200 and 300 litres respectively.
- (2) Until 5th December 2013, the customers benefited a credit from EWSA SolaRwanda Program fixed as: Rwf 372,000 and Rwf 558,000 for SWHs with capacities of 200 and 300 litres respectively and the customer started to reimburse this loan, when the solar water heating system installation passed all inspections and testing procedures. The customer supposed to reimburse the loan within a period of 24 months after the installation of the SWH.
- (3) The balance between the supplier quotation and EWSA applicable subsidy plus credit should be paid by the customer directly to the supplier before the installation being done.

Remarks:

The customer wishing to benefit the grant and credit facilities for acquisition a SWH under SolaRwanda Program should pay Rwf 30,000 to EWSA Account number **0400013646-02 RWF** located in **Bank of Kigali**.

Available Incentives by EWSA SolaRwanda Program and Financial Institutions to customers from 5th December 2013

- (1) EWSA signed on 5th December 2013 with COGEBANQUE Ltd, UMWALIMU SACCO and i&M Bank Ltd a cooperation agreement for provision and management credit support within the Solar Water Heater Market Development Programme in Rwanda (SolaRwanda Programme).
- (2) The customer benefits a subsidy from EWSA SolaRwanda Program fixed as: Rwf 186,000 and Rwf 279,000 for solar water heaters with capacities of 200 and 300 litres respectively.
- (3) The selected supplier will give a quotation to the customer; the amount of subsidy will be removed from the total cost of the SWH system. The customer will be given by the Bank a facilitation of paying the remaining amount as a credit payable in period of 24 months from the date when the SWH is installed and inspected by an Independent Verification Agent.
- (4) The customer wishing to benefit the grant and credit facilities for acquisition a SWH under SolaRwanda Program should pay Rwf 30,000 to EWSA Account number **0400013646-02 RWF** located in **Bank of Kigali**.



BANKS INVOLVEMENT

A Customer wishing to acquire a SWH under SolaRwanda Programme after the involvement of Banks will only receive Grants from EWSA as a subsidy depending on the size of SWH to be installed at his premises. The Banks will only give credits plus the amount surplus on the quotation to the SolaRwanda Programme's customer

THE BANKS THAT HAVE SIGNED THE CONTRACT WITH EWSA ARE:

- 1: UMWARIMU SACCO**
- 2: i&M(FORMER BCR)**
- 3: COGEBANK**

For further information and clarification regarding SolaRwanda Program, customers can contact one of the following EWSA's agents:

- ❖ Bonaventure NZEYIMANA: Telephone: 0788 83 36 94, E-mail: bonanzeyimana@ewsa.rw
- ❖ Clarisse INGABIRE: Telephone : 0788 452148 , Email: dingabire@ewsa.rw
- ❖ Felix SESONGA : Telephone : 0788 862273, Email: fsesonga@ewsa.rw
- ❖ Jackson MUGABO: Telephone : 0788 48 82 74, Email: jmugabo@ewsa.rw

For Licensed (Eligible) Contractors (Suppliers) under SolaRwanda Program Contact:

The selection of a SWH is **a matter of private transaction between the Householder and the SWH Eligible Supplier**. The first process from the Householder is to contact following eligible suppliers for survey and quotation:

(1)



BALTON RWANDA
Avenue De la Paix, Near CHUK Hospital–Kigali
PO Box 2972, Kigali-Rwanda
Direct Sales Contact Person: Mr. Bosco TUSHABE
Email: bosco@balton.co.rw
Tel No: 0788389060

(2)

DAVIS & SHIRTLIFF



Centre Ville towards Nyabugogo
PO Box 7039 Kigali-Rwanda
Tel: +250 255 504 039 / 788 389 755 ; Fax: +250 255 504 033
Direct Sales Contact Person: Thacien Niyonsaba
Tel. 0788473409 ;Email: thacien.niyonsaba@dayliff.com

(3)



GLOBAL EVOLUTION ENERGY
Phone: 07 88 77 46 48 and 07 87 68 44 39
Direct Sales Email and Tel No
Mr. FABRICE– 0788774648 – mufaby@yahoo.fr

(4)



ENTREPRISE RUTAGARAMA FIDELE (ERF)
Nyarugenge District, Nyabugogo Avenue,
On the road Nyabugogo-Kimisagara-Nyamirambo
P.O Box 2747 Kigali-Rwanda.
Direct Sales Contact Person :Emmanuel DUSABE &Nshuti KALISA
Mobile Phone Number: 07 88 74 17 87 &0788500803
E-mail: dusabe10@yahoo.fr, nshuti.kal@gmail.com

(5)



MANUMETAL LTD
Avenue de Cooperatives NearGakinjiro Market in Town
PO Box 276 Kigali-Rwanda
Direct Sales Contact Person: TheranceNdisanga
Tel: 0788350598
Email:therancen@manumetal.rw

(6)



ECO-PROTECTION LTD

Parc Industriel

P.O. BOX 103 KIGALI

Direct Sales Contact Persons:

- **Mrs Lydie MURORUNKWERE:** 0788304837, lydie@eco-protection.org
- **Mr. Fabrice GATERA;** 0788301881, fabrice@eco-protection.org

(7)



Contact Names:

- **Francine Munyaneza + 250 784 969 785**
- **Francois Bizimana +250 788 536 973**

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