

VANUATU RURAL ELECTRIFICATION PROGRAM PART 2

Product Catalogue, with Approved Solar Home Systems (SHS) & Micro Grids Eligible for Subsidies under VREP 2



VREP 2 PRODUCT CATALOGUE: ISSUE 8.1 APRIL 2020

The Vanuatu Government has secured funding from the World Bank and New Zealand Government to subsidize Solar Home Systems (SHS) and Micro Grids to provide electrification for Households, Public Institutions or Businesses located in dispersed off-grid areas of Vanuatu.

The Solar Home Systems and Micro-grids published in this Product Catalogue are eligible for subsidy through VREP II and meet the product and installations specifications referred to in the VREP Subsidy Implementation Manual (SIM). The catalogue lists the specifications, supplier and price for each system that is eligible for subsidy.

Subsidy for SHS and Micro grids will be provided at one-third of the total costs of the approved systems (including installation and freight to wharf at your provincial center). All systems approved are high quality systems which their key components have met requirements stipulated by DoE. All systems components come with a minimum of 2 years warranty.

To purchase a system eligible for the subsidy, simply choose the system suitable for your needs and budget. We encourage you to shop around and check all the options and companies in the catalogue! Once you're happy and you've chosen your system, you will only have to pay 66.6% of the normal price! The approved vendor then invoices Department of Energy for the remaining 33.3% on behalf of the Customer.

Solar Home System Category 1: 120 Watt to 160Watt systems

Systems under this category have a single PV panel between 120 and 160 Watts. The batteries have a minimum 3 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the customer as well as the supplier.



PCS 150W 326Wh AC Load



- (f) 150W Solar Panel
- == 12V 100Ah Ritar OPzV Battery
- 326 Watt-hours AC load per day
- 3.1 days of autonomy
- 20A PWM Controller, 250VA inverter, AC Load Outputs and Pre-assembled board

Normal Price VT 105,000 inc VAT*

Available at:

YOU PAY



*PCS applies same price for all provinces



Solar Home System Category 2: 220 Watt to 280 Watt systems

Systems under this category have a single PV panel between 220 and 280 Watts. The batteries have a minimum 3 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the customer as well as the supplier. Please see following pages for Category 2 Solar Home Systems.

SAVVY SOLAR 275W 618WH DC Load



- (f) 275W Solar Panel
- == 12V 193Ah Ritar OPzV Battery
- 618 Watt-hours load per day
- 3 days of autonomy
- 15A MPPT Controller, DC Load Plates and Preassembled board

Normal Price VT 148,500 inc VAT*

YOU PAY VT99,000 inc VAT*

*Savvy Solar applies same price for all provinces

Available at:



PCS 275W 504Wh DC Load



- 275W Solar Panel
- 12V 200Ah Ritar OPzV Battery
- 504 Watt-hours DC load per day
- 3.1 days of autonomy
- 30A MPPT Controller, DC Output plate and Preassembled board

Normal Price VT 151,200 inc VAT* YOU PAY

VT 100,800 inc VAT*



SAVVY SOLAR 275W 587WH AC-DC Load



3 275W Solar Panel

12V 193Ah Ritar OPzV Battery

587 Watt-hours load per day

3 days of autonomy

375VA Inverter with 15A MPPT Controller, DC Load Plates and Pre-assembled board

Normal Price
VT 163,500 inc VAT *
YOU PAY

VT 109,000 inc VAT*

*Savvy Solar applies same price for all provinces



PCS 275W 470Wh AC Load



- 275W Solar Panel
- 💼 12V 200Ah Ritar OPzV Battery
- **②** 470 Watt-hours AC load per day
- 3.2 days of autonomy
- 30A MPPT Controller, 375VA inverter and Preassembled board

Normal Price VT 165,000 inc VAT*

YOU PAY

VT 110,000 inc VAT*



PCS 275W 499Wh AC Load



- 275W Solar Panel
- 12V 200Ah Ritar OPzV Battery
- 499 Watt-hours AC load per day
- 3 days of autonomy
- 30A MPPT Controller, 300W Inverter and Preassembled board

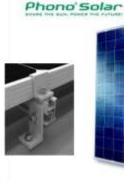
Normal Price VT 181,500 inc VAT* YOU PAY VT 121,000 inc VAT*

Available at:

*PCS applies same price for all provinces

SAVVY SOLAR 275W 592WH DC Load



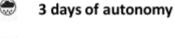












15A MPPT Controller, DC Load Plates and Preassembled board

Normal Price VT 193,500 inc VAT * YOU PAY VT 129,000 inc VAT*

Available at:

SAVVY SOLAR 275W 562WH AC-DC Load



- 275W Solar Panel
- 12V 185Ah Sungel Battery
- 562 Watt-hours load per day
- 3 days of autonomy
- 375VA Inverter with 15A MPPT Controller, DC Load Plates and Pre-assembled board

Normal Price
VT 208,500 inc VAT *
YOU PAY

VT 139,000 inc VAT*

*Savvy Solar applies same price for all provinces



Solar Home System Category 3: 440 Watt to 560 Watt systems

Systems under this category have a PV array between 440 and 560 Watts. The batteries have a minimum 3 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the supplier, so it includes cost of installation. Please see following pages for Category 3 Solar Home Systems.

PCS 550W 1010Wh DC Load



- 550W Solar Panel (2x275W panels)
- **24V 200Ah Ritar OPzV Battery**
- 1010 Watt-hours DC load per day
- 3 days of autonomy
- 30A MPPT Controller and Pre-assembled board

Normal Price VT 300,000 inc VAT*

Available at:

YOU PAY

VT 200,000 inc VAT*

*PCS applies same price for all provinces



SAVVY SOLAR 550W 1173WH AC Load



- 550W Solar Array (2x275W solar panels)
- 💼 24V 193Ah Ritar OPzV Battery Bank
- (2) 1173 Watt-hours load per day
- 3 days of autonomy
- 800VA 24V Inverter, 20A MPPT Controller and Pre-assembled board

Normal Price
VT 373,500 inc VAT *
YOU PAY

VT 249,000 inc VAT*



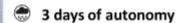
PCS 550W 1010Wh AC Load

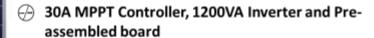












Normal Price VT 375,000 inc VAT* YOU PAY

VT 250,000 inc VAT*

*PCS applies same price for all provinces



SAVVY SOLAR 550W 1125WH AC Load



- § 550W Solar Array (2x275W solar panels)
- 24V 185Ah Sungel Battery Bank
- 1125 Watt-hours load per day
- 3 days of autonomy
- 800VA 24V Inverter, 20A MPPT Controller and Pre-assembled board

Normal Price
VT 478,500 inc VAT *
YOU PAY

VT 319,000 inc VAT*



PCS 550W 1176Wh AC Load



- 550W Solar Panel (2x275W panels)
- 24V 400Ah Ritar OPzV Battery
- **1070 Watt-hours AC load per day**
- 5 days of autonomy
- 30A MPPT Controller, 1200VA Inverter and Preassembled board

Normal Price VT 500,000 inc VAT*

YOU PAY

VT 333,333 inc VAT*

*PCS applies same price for all provinces



SAVVY SOLAR 550W 1177WH AC-DC LOAD



- 550W Solar Array (2x275W solar panels)
- 24V 386Ah Ritar OPzV Battery Bank
- **1177 Watt-hours load per day**
- 6 days of autonomy
- 1200VA 24V Inverter, 20A MPPT Controller preassembled board

Normal Price VT 538,500 inc VAT *

YOU PAY

VT 359,000 inc VAT*



SAVVY SOLAR 550W 1177WH AC-DC LOAD



- 550W Solar Array (2x275W solar panels)
- 💼 24V 370Ah Sungel Battery Bank
- 1177 Watt-hours load per day
- 6 days of autonomy
- 1200VA 24V Inverter, 20A MPPT Controller preassembled board

Normal Price VT 748,500 inc VAT * YOU PAY

VT 499,000 inc VAT* Savvy Solar applies same price for all provinces



Solar Home System Category 4: 880 Watt to 1120 Watt systems

Systems under this category have a PV array between 880 and 1120 Watts. The batteries have a minimum 3 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the supplier, so it includes cost of installation. Please see following pages for Category 4 Solar Home Systems.

SAVVY SOLAR 1100W 2347WH AC-DC LOAD



- 1100W Solar Array (4x275W solar panels)
- 24V 386Ah Ritar OPzV Battery Bank
- ② 2347 Watt-hours load per day
- 3 days of autonomy
- 1200VA 24V Inverter, 35A MPPT Controller preassembled board, battery monitor

Normal Price
VT 660,000 inc VAT *
YOU PAY
VT 440,000 inc VAT*

Available at:

SAVVY

SOLAR

YUMI SAVE SOLA

*Savvy Solar applies same price for all provinces

PCS 990W 1999Wh AC LOAD



- 990W Solar Panel (3x330W panels)
- 💼 24V 400Ah Ritar OPzV Battery
- 1999 Watt-hours AC load per day
- 3 days of autonomy
- 35A MPPT Controller, 1200VA Inverter and Preassembled board

Normal Price VT 681,310 inc VAT*

YOU PAY

VT 454,207 inc VAT^{*}



SAVVY SOLAR 1100W 2347WH AC-DC LOAD



- 1100W Solar Array (4x275W solar panels)
- == 24V 386Ah Ritar OPzV Battery Bank
- 2347 Watt-hours load per day
- 3 days of autonomy
- 1200VA 24V Inverter-charger, 35A MPPT Controller pre-assembled board, battery monitor

Normal Price
VT 726,000 inc VAT *
YOU PAY
VT 484,000 inc VAT*

SAVVY SOLAR YUMI SAVE SOLA

Available at:

* Savvy Solar applies same price for all provinces

PCS 990W 2140Wh AC LOAD



- 990W Solar Panel (3x330W panels)
- 24V 490Ah Ritar OPzV Battery
- 2140 Watt-hours AC load per day
- 5.3 days of autonomy
- 35A MPPT Controller, 1200VA Inverter and Preassembled board

Normal Price VT 740,345 inc VAT*

YOU PAY

VT 493,563 inc VAT'



ETECH 1120W 2128Wh AC LOAD



- 1120W Solar Panel (280W x4)
- 24V 350Ah JYC OPzV Battery
- ② 2128 Watt-hours AC load per day
- 3 days of autonomy
- 2000VA Inverter, 60A MPPT Controller and Preassembled board

Normal Price VT 742,900 inc VAT* YOU PAY

VT495,267 inc VAT*

*Etech offers the same cost across all islands



SAVVY SOLAR 1100W 2250WH AC-DC LOAD



- 1110W Solar Array (4x275W solar panels)
- 💼 24V 370Ah Sungel Battery Bank
- ② 2250 Watt-hours load per day
- 3 days of autonomy
- 1200VA 24V Inverter, 35A MPPT Controller, Battery Monitor, pre-assembled board

Normal Price
VT 795,000 inc VAT *
YOU PAY

VT 530,000 inc VAT*

* Savvy Solar applies same price for all provinces

SAVVY SOLAR YUMI SAVE SOLA

Available at:

PCS 1100W 2353Wh AC LOAD



- § 1100W Solar Panel (4x275W panels)
- 24V 490Ah Ritar OPzV Battery
- 2353 Watt-hours AC load per day
- 3.6 days of autonomy
- Victron 24V, 1600VA Easysolar, with 50A MPPT Controller and pre-wired AC distribution board

Normal Price VT 860,000 inc VAT*

YOU PAY

VT 573,333 inc VAT*

*PCS applies same price for all provinces



SAVVY SOLAR 1100W 2250WH AC-DC LOAD







- 1110W Solar Array (4x275W solar panels)
- 💼 24V 370Ah Sungel Battery Bank
- ② 2250 Watt-hours load per day
- 3 days of autonomy
- 1200VA 24V Inverter-charger, 35A MPPT Controller, Battery Monitor, pre-assembled board

Normal Price
VT 861,000 inc VAT *
YOU PAY

VT 574,000 inc VAT*

*Savvy Solar applies same price for all provinces

Available at:

SAVVY

SOLAR

VIIMI SAVE SOLAR

SAVVY SOLAR 1100W 2353WH AC-DC LOAD



- 1980W Solar Array (4x275W solar panels)
- 48V 386Ah Ritar OPzV Battery Bank
- 2353 Watt-hours load per day
- 6 days of autonomy
- 3000VA 48V Inverter-charger, 35A MPPT Controller, Battery Monitor, pre-assembled board

Normal Price VT 1,101,000 inc VAT * YOU PAY

VT 734,000 inc VAT*

Available at:



* Savvy Solar applies same price for all provinces



- (4x275W solar panels)
- 💼 48V 370Ah Sungel Battery Bank
- 2347 Watt-hours load per day
- 5.73 days of autonomy
- 3000VA 48V Inverter-charger, 35A MPPT Controller, Battery Monitor, pre-assembled board

Normal Price VT 1,371,000 inc VAT * YOU PAY

VT 914,000 inc VAT* * Savvy Solar applies same price for all provinces Available at:



Micro-grid System Category 1: 1800 Watt to 2200 Watt systems

Systems under this category have a PV array between 1800 and 2200 Watts. The batteries have a minimum 6 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the supplier, so it includes cost of installation. Please see following pages for Category 1 Micro-grid Systems.

ETECH 1960W 3648Wh AC LOAD



- 1960W Solar Panel (280W x7)
- **a** 24V 600Ah JYC OPzV Battery
- 3648 Watt-hours AC load per day
- 3 days of autonomy
- 3000VA Inverter, 2x60A MPPT Controller and Pre-assembled board

Normal Price VT 1,029,250 inc VAT*

YOU PAY VT686,167 inc VAT*

*Etech offers the same cost across all islands

Available at:



SAVVY SOLAR 1980W 4236WH AC LOAD







- 1980W Solar Array (6x330W solar panels)
 - 💼 48V 386Ah Ritar OPzV Battery Bank
- 4236 Watt-hours load per day
- 3.3 days of autonomy
- 3000VA 48V Inverter-charger, 35A MPPT Controller, Battery Monitor, pre-assembled board

Normal Price
VT 1,303,500 inc VAT *
YOU PAY

VT 869,000 inc VAT*

* Savvy Solar applies same price for all provinces

SAVVY SOLAR

Available at:

PCS 1980W 4200Wh AC LOAD



- 1980W Solar Panel (6x330W panels)
- 🚔 48V 490Ah Ritar OPzV Battery
- 4200 Watt-hours AC load per day
- 4 days of autonomy
- Victron 48V, 3000VA Inverter Charger, with 70A MPPT Controller and AC distribution board

Normal Price
VT 1,322,841 inc VAT*
YOU PAY

VT 881,894 inc VAT*



PCS 1830W 3700Wh AC LOAD



- (f) 1830W Solar Panel (6x305W panels)
- 48V 490Ah Ritar OPzV Battery
- 3700 Watt-hours AC load per day
- 4.5 days of autonomy
- Victron 48V, 3000VA Easysolar, with 70A MPPT Controller and pre-wired AC distribution board

Normal Price VT 1,322,841 inc VAT*

YOU PAY

VT 881.894 inc VAT

*PCS applies same price for all provinces



SAVVY SOLAR 1980W 4236WH AC LOAD



- 1980W Solar Array (6x330W solar panels)
 - 48V 386Ah Ritar OPzV Battery Bank
- 4236 Watt-hours load per day
- 3.3 days of autonomy
- 5000VA 48V Inverter-charger, 35A MPPT Controller, Battery Monitor, pre-assembled board

Normal Price VT 1,453,500 inc VAT * YOU PAY

VT 969,000 inc VAT*



Micro-grid System Category 2: 2700 Watt to 3300 Watt systems

Systems under this category have a PV array between 2700 and 3300 Watts. The batteries have a minimum 6 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the supplier, so it includes cost of installation. Please see following pages for Category 2 Micro-grid Systems.

ETECH 2800W 5990Wh AC LOAD



- 2800W Solar Panel (280W x10)
- 24V 600Ah JYC OPzV Battery
- 5990 Watt-hours AC load per day
- 3 days of autonomy
- 3000VA Inverter, 2x60A MPPT Controller and Pre-assembled board

Normal Price VT 1,401,850 inc VAT*

YOU PAY VT934,567 inc VAT*

*Etech offers the same cost across all islands



ETECH 3240W 6080Wh AC LOAD



- 3240W Solar Panel (270W x12)
- **24V 1000Ah JYC OPzV Battery**
- 6080 Watt-hours AC load per day
- 3 days of autonomy
- 3000VA Inverter, 1x80A MPPT Controller and Pre-assembled board

Normal Price VT 1,624,665 inc VAT*

YOU PAY

VT1,083,110 inc VAT*

*Etech offers the same cost across all islands



PCS 2970W 6440Wh AC LOAD



- (f) 2970W Solar Panel (9x330W panels)
- ## 48V 600Ah Ritar OPzV Battery
- **6440 Watt-hours AC load per day**
- 4.3 days of autonomy
- Victron 48V, 3000VA Inverter Charger with 70A MPPT Controller and AC distribution board

Normal Price VT 1,752,000 inc VAT*

YOU PAY

VT 1,168,000 inc VAT*



Etech 3240W 6080Wh AC LOAD



- 3240W Solar Panel (270W x12)
- **24V 1000Ah JYC OPzV Battery**
- 6080 Watt-hours AC load per day
- 3 days of autonomy
- 3000VA Inverter, 3x50A MPPT Controller and Pre-assembled board

Normal Price VT 1,787,244 inc VAT*

YOU PAY

VT1,191,496 inc VAT*

*Etech offers the same cost across all islands



PCS 3300W 7310Wh AC LOAD



- (f) 3300W Solar Panel (12x275Wpanels)
- 💼 48V 600Ah Ritar OPzV Battery
- 7310 Watt-hours AC load per day
- 3.8 days of autonomy
- Victron 48V, 3000VA Inverter Charger with 70A MPPT Controller and AC distribution board

Normal Price VT 1,875,000 inc VAT*

YOU PAY

VT 1,250,000 inc VAT*



SAVVY SOLAR 2970W 6354WH AC LOAD



- 2970W Solar Array (9x330W solar panels)
- 48V 643Ah Ritar OPzV Battery Bank
- 6354Watt-hours load per day
- 3.7 days of autonomy
- 3000VA 48V Inverter-charger, 60A MPPT Controller, Battery Monitor, remote internet monitoring and control

Normal Price
VT 2,211,000 inc VAT *
YOU PAY

VT 1,474,000 inc VAT*

* Savvy Solar applies same price for all provinces



SAVVY SOLAR 2970W 6354WH AC LOAD



- 2970W Solar Array (9x330W solar panels)
- 48V 643Ah Ritar OPzV Battery Bank
- **③** 6354 Watt-hours load per day
- 3.7 days of autonomy
- 5000VA 48V Inverter-charger, 60A MPPT Controller, Battery Monitor, remote internet monitoring and control



Normal Price
VT 2,361,000 inc VAT *
YOU PAY

VT 1,574,000 inc VAT*



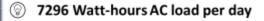
Micro-grid System Category 3: 3600 Watt to 4400 Watt systems

Systems under this category have a PV array between 3600 and 4400 Watts. The batteries have a minimum 6 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the supplier, so it includes cost of installation. Please see following pages for Category 3 Micro-grid Systems.





24V 1380Ah JYC OPzV Battery



3 days of autonomy

3000VA Inverter, 3x80A MPPT Controller and Pre-assembled board

Normal Price VT 1,852,650 inc VAT*

VT1,235,100 inc VAT*

*Etech offers the same cost across all islands



PCS 3960W 8580Wh AC LOAD



- 3960W Solar Panel (12x330W panels)
- ## 48V 980Ah Ritar OPzV Battery
- 8580 Watt-hours AC load per day
- 5.3 days of autonomy
- Victron 48V, 3000VA Inverter Charger with 70A MPPT Controller and AC distribution board

Normal Price VT 2,352,000 inc VAT*

Available at:

YOU PAY

VT 1,568,000 inc VAT*

*PCS applies same price for all provinces



SAVVY SOLAR 3960W 7819WH AC LOAD



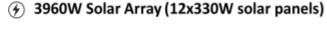
- 3960W Solar Array (9x330W solar panels)
- 🚞 48V 643Ah Ritar OPzV Battery Bank
- 7819 Watt-hours load per day
- 3 days of autonomy
- 3000VA 48V Inverter-charger, 70A MPPT Controller, Battery Monitor, remote internet monitoring and control

Normal Price VT 2,368,500 inc VAT *

YOU PAY VT 1,579,000 inc VAT*

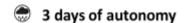












5000VA 48V Inverter-charger, 70A MPPT Controller, Battery Monitor, remote internet monitoring and control

Normal Price
VT 2,518,500 inc VAT *
YOU PAY

VT 1,679,000 inc VAT*

* Savvy Solar applies same price for all provinces



Micro-grid System Category 4: 4500 Watt to 5500 Watt systems

Systems under this category have a PV array between 3600 and 4400 Watts. The batteries have a minimum 6 year design life. All system components come with a 2 year warranty. The systems are also designed to be installed by the supplier, so it includes cost of installation. Please see following pages for Category 3 Micro-grid Systems.

PCS 4950W 10735Wh AC LOAD



- (f) 4950W Solar Panel (15x330W panels)
- 48V 980Ah Ritar OPzV Battery
- 10,735 Watt-hours AC load per day
- 4.2 days of autonomy
- Victron 48V, 5000VA Easysolar, with 100A MPPT Controller, Colour screen and AC distribution board

Normal Price VT 2,553,000 inc VAT*

YOU PAY

VT 1,702,000 inc VAT

*PCS applies same price for all provinces

Available at:



SAVVY SOLAR 4950W 10421 WH AC LOAD



- (f) 4950W Solar Array (15x330W solar panels)
- 💼 48V 857Ah Ritar OPzV Battery Bank
- 10421 Watt-hours load per day
- 3 days of autonomy
- 5000VA 48V Inverter-charger, 85A MPPT Controller, Battery Monitor, remote internet monitoring and control

Normal Price VT 3,126,000 inc VAT *

YOU PAY

VT 2,084,000 inc VAT*



SAVVY SOLAR 4950W 10421 WH AC LOAD



.

4950W Solar Array (15x330W solar panels)

=== 48V 857Ah Ritar OPzV Battery Bank

10421 Watt-hours load per day

3 days of autonomy

10000VA 48V Inverter-charger, 85A MPPT Controller, Battery Monitor, remote internet monitoring and control

Normal Price
VT 3,502,500 inc VAT *
YOU PAY

VT 2,335,000 inc VAT*

* Savvy Solar applies same price for all provinces



SAVVY SOLAR 4950W 10590 WH AC LOAD



- 4950W Solar Array (15x330W solar panels)
- 💼 48V 1286Ah Ritar OPzV Battery Bank
- 10590 Watt-hours load per day
- 4.4 days of autonomy
- 5000VA 48V Inverter-charger, 85A MPPT Controller, Battery Monitor, remote internet monitoring and control

Normal Price VT 4,033,500 inc VAT * YOU PAY

VT 2,689,000 inc VAT*



SAVVY SOLAR 4950W 10590 WH AC



- (f) 4950W Solar Array (15x330W solar panels)
- ### 48V 1286Ah Ritar OPzV Battery Bank
- 10590 Watt-hours load per day
- 4.4 days of autonomy
- 10000VA 48V Inverter-charger, 85A MPPT Controller, Battery Monitor, remote internet monitoring

Normal Price
VT 4,333,500 inc VAT *
YOU PAY
VT 2,889,000 inc VAT*



APPROVED VREP II VENDORS / COMPANIES



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