

★ Vanuatu Rural Electrification Project (VREP) II



Category: Off-Grid

VREP II will support SHS, micro and mini grids in rural areas, strengthen institutions, and increase business opportunities for the private sector for the supply decentralized electricity services. VREP II will transition from “plug and play” systems to more advanced SHS that require technical support, micro grids and mini grids where the latter can be supported on economic or piloting benefits. The project includes three components.

Component One

Provision of Solar Home Systems and micro grids in rural areas of Vanuatu (US\$5.37 million). This component will support expansion of access to reliable electricity service in rural Vanuatu through SHS and micro grid configurations where mini grid configurations are unlikely to be economically viable and which are not earmarked for mini grids under this or other donor or government projects or are the least cost solution. SHS and micro grids will be available to rural households and public institutions. This component will target approximately 37 public institutions and 8,400 rural households, which equates to approximately 42,000 people.

SHS and micro grids may include systems for household use (of varying capabilities and costs as per demand) and will be available for purchase to all rural consumers, a community application, for example, for a church, electrification of a health center based on its needs, and may include solar water pumps or other similar applications. To ensure the project is reaching the targeted beneficiaries, data on household income will be collected during either the application or verification process. The project will partly subsidize the retail cost of SHS and micro grids. An amount will be established (initially 33 percent of retail cost) and then may be varied over time depending on the take up rate and the size of the system. The consumer will arrange his/her portion of the funds for the purchase (initially 67 percent of the retail cost), either by means of cash or microfinance credit (either via a microfinance provider or through the vendor).

Under this market-based mechanism, consumers will purchase systems from competing vendors at subsidized prices. Information on products will be disseminated through vendors and communities via a Product Catalogue, which will list all products the vendors are selling and that are eligible for a subsidy under the project. The technical standards (international standards) and the type of products available under this component will be set out in the catalogue which will be reviewed from time to time, or in the case of micro grids it may be sourced through tender which will set out the specifications, standards and operations and maintenance arrangements. Vendors may also undertake direct marketing and road shows such as those done for VREP I and drawing on the experience from the Sustainable Energy Financing Project in Fiji. The consumer will inform the vendor of his/her intended purchase, either by visiting the shop or through post/phone/email communication, and arrange payment.

Component Two

Construction of mini grids in rural areas of Vanuatu (US\$6.8 million). This component will support the expansion of access to reliable electricity services for rural communities through support for the design, supply, installation and commissioning of mini grid systems. The project will finance the construction of 5 mini grids, based on initial cost estimates. The criteria for selection of sites with potential to support a mini grid is: (i) community household numbers greater than 75 households; and (ii) business and public institutions load greater than 50 percent of the total load. This component will support electricity service provision to approximately 550 rural households, which equates to around 2,750 people, and public institutions and businesses.

Component Three

Technical Assistance and Project management (US\$2.0 million). This component addresses three key areas of the project, the first focusing on the vendor registration model for Component one, the second focusing on Owners’ Engineer for Component two and the third focusing on project management. In addition, there is an allowance for Government contribution (US\$1.5 million “in kind”) that will cover the Government of Vanuatu’s direct project related costs, such as arrangements for voluntary land donation and other inter-departmental support. The main areas and key activities funded under the project are set out below:

Vendor and product registration arrangements, communications and implementation arrangements. Building on the established implementation arrangements under VREP I, the following activities will be financed to support the implementation of the investment activities under Component 1: (a) hire a technical consultant to prepare technical standards; (b) amendment of the vendor registration arrangements to incorporate SHS and micro grids; (c) amendment of product registration arrangements (for a product catalogue) to incorporate SHS and micro grids; (d) development of program and product awareness, safety and product care training material for communities, and end users; (e) establishment of a grievance mechanism for end-user and communities; (f) explore opportunities for the development of a microfinance product to encourage lending in rural areas; and (g) support for adoption of legislation, regulations and/or further refinement of the VREP I Environmental Code of Practice (ECOP) for disposal of batteries and solid wastes for products under the project.

Owners’ Engineer. The following activities will be financed to support the preparation and implementation of the investment activities under Component 2: (i) site selection; (ii) technical design of each micro and mini grid; (iii) prepare the environmental and social impact assessment and management plans; (iv) preparation of bid documents and contracts for the construction of the micro and mini grids and assist with the bidding and award process; (v) supervision of the construction and commissioning works; and (vi) compliance and reporting on the implementation of the environmental and social impact assessments and management plans.

Project management and support. The following activities will be financed for effective implementation, monitoring and reporting under the project: (i) execution of awareness programs to rural communities and consumers in Vanuatu, in particular consultation with communities on the long list to request their expression of interest to receive a micro or mini grid; (ii) verification agent to certify the retails sales of SHS and micro grids under Component 1; (iii) capacity building and implementation support to the DoE through the Owners’ Engineer; (iv) monitoring, evaluation and annual reviews of the project; and (v) operating costs associated with this project as provided for in the legal agreement.

Objectives

To support increased penetration of renewable energy and increased access to electricity services in the dispersed off-grid areas of Vanuatu. VREP II is aimed at supporting the Vanuatu Government's objective to increse access to sustainable electricity services for rural households, public institutions and businesses located in dispersed off-grid areas.

Deliverables

Key deliverables are:

- Component 1: 37 public institutions and 8,400 rural households, which equates to approximately 42,000 people provided with electricity
- Component 2: 550 households qhich equates to 2,750 people, and public institutions and businesses electrified through mini grids build through the VREP II.

Donor	World Bank
Funding	1,417,000,000VT
Stakeholders	Government of Vanuatu, Energy Providers, People of Vanuatu
Officer Responsible	Leith Veremaito

Period

23-Jul-17 to 30-Jun-22