

CONSULTANCY OPPORTUNITY

Request for Proposals

Vanuatu Electrification Feasibility Study at Talise

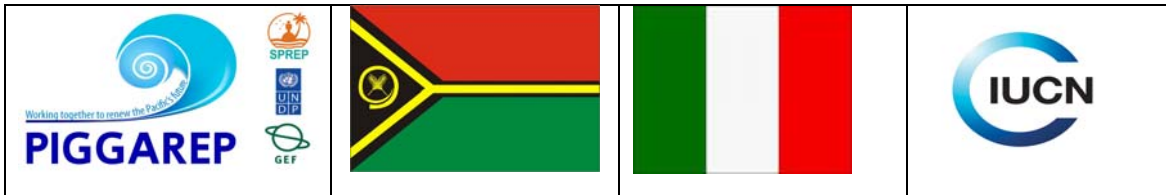
Background:

The Pacific Islands Green House Gas Abatement through Renewable Energy Project (PIGGAREP) is a regional climate change mitigation project that was approved for funding by the Global Environment Facility (GEF) in September 2006. The project is for eleven Pacific Island Countries (PIC) – Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu with the United Nations Development Programme (UNDP) as the GEF Implementing Agency and the Secretariat of the Pacific Regional Environment Programme (SPREP) as the Implementing Partner.

The global environment and development goal of PIGGAREP is the reduction of the growth rate of greenhouse gas (GHG) emissions from the fossil fuel use in the PICs through the removal of the barriers to the widespread and cost effective use of feasible renewable energy (RE) technologies. The specific objective of the project is the promotion of the productive use of RE to reduce GHG emission by removing the major barriers to the widespread and cost-effective use of commercially viable RE technologies (RETs). PIGGAREP consists of various activities whose outputs will contribute to the removal of the major barriers to the widespread utilization of RETs. The project is expected to bring about in the PICs: (1) Increased number of successful commercial RE applications; (2) Expanded market for RET applications; (3) Enhanced institutional capacity to design, implement and monitor RE projects; (4) Availability and accessibility of financing to existing and new RE projects; (5) Strengthened legal and regulatory structures in the energy and environmental sectors; and (6) Increased awareness and knowledge on RE and RETs among key stakeholders.

Another new project that was also underway is The Project *Managing the Ecosystem and Livelihood Implications of Energy Policies in the Pacific Island States* implemented by the International Union for the Conservation of Nature (IUCN) which forms part of a larger initiative, the Sustainable Energy Programme for the Pacific Small Island States (SEPPSIS) funded by the Italian and Austrian governments.

The project for the Talise Hydropower in Maewo is one of the components that was submitted for funding under the SEPPSIS which was based on a feasibility study been carried out by APACE-an Australian non-government organization- in 2002 (Annex B). Before the commencement of the construction of the Talise hydropower, a validation



study of the 2002 Talise hydropower Feasibility is required and this will be funded by the PIGGAREP project.

Proposals are therefore requested from interested parties that are willing and able to undertake the services as specified in the attached Terms of References (ToR) for the Vanuatu Electrification Feasibility Study at Talise (Annex A).

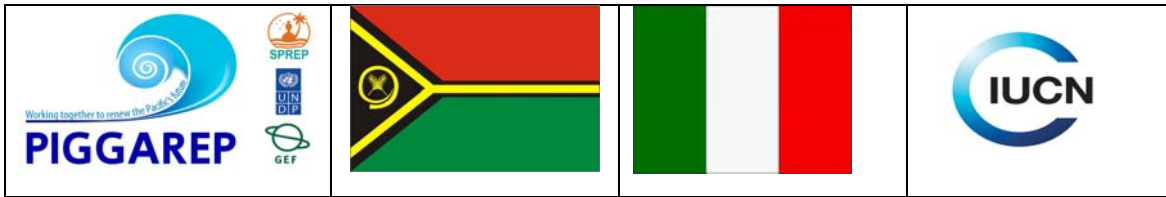
Instructions to Offerors:

- ▶ The Proposal must cover all the objectives, outputs and activities as specified in the ToR
- ▶ The Proposal must include costs for professional fees, travel and per diem
- ▶ US\$ only must be used in the Proposal
- ▶ The Proposal must include: i) an updated CV of the individual/s who will undertake the consultancy ii) a summary of recent work in the areas to be covered in this consultancy (including client and work produced); ii) information on availability; iii) total person days proposed for the work on the consultancy and daily rate in US\$ and iv) a methodology and work plan (maximum 10 pages)
- ▶ As part of the capacity building elements of this activity, proposals must include the involvement of two officers from the Vanuatu Energy Office in the study. The roles and the transportation and daily subsistence costs for these officers must be included in the proposal
- ▶ The consultancy preferably should commence by February 2009
- ▶ The offer must be in the English language only
- ▶ The above-mentioned documents, information and requirements are mandatory and as such are required to form a complete tender. An offer will be rejected unless it is substantially responsive
- ▶ If the proposal is received prior to the formal submission date corrections/modifications can be made up to that date
- ▶ The proposal must be submitted in electronic format only (Word and PDF format, 1 MB max) by email to the e-mail address specified below
- ▶ The consultancy must be undertaken with a field visit to Vanuatu – including the capital, Port Vila, and the specific sites. The exact number of working days will be determined subsequently between the successful Contractor, the Vanuatu Government, SPREP and IUCN.

The final working plan will be determined subsequently between the successful Contractor, the Vanuatu Government and PIGGAREP. Acknowledgements of the receipt of proposals will be provided by e-mail. Successful as well as unsuccessful offerors will be informed by e-mail once the evaluation and selection process are completed.

Award of Contract and Evaluation Criteria:

Proposals will be evaluated according to the following criteria:



1. Price (20%)
2. Relevant Experience in hydropower feasibility studies in small island environments (30%)
3. Experience with Vanuatu's and/or SIDS energy and socio-economic environments (20%)
4. Methodology/Work Plan (30%)

All proposals must be addressed to:

**The Director
SPREP
PO Box 240
Apia, Samoa**

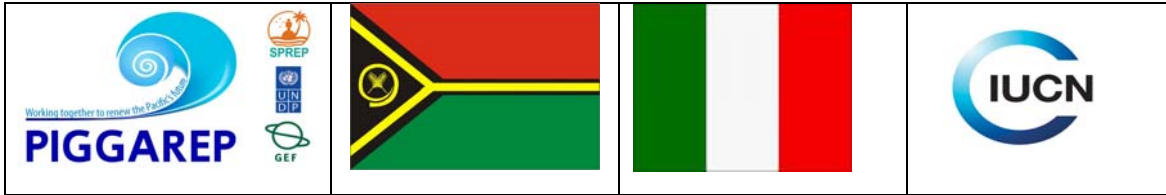
**Telephone: (685) 21929
Facsimile: (685) 20231
E-mail: SPREP@sprep.org**

Deadline for the submission of proposals is 30 January 2009, Samoa time.

Contact Information:

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ANNEX A

TERMS OF REFERENCE

JOINT PIGGAREP/ EESLI / Vanuatu Electrification Feasibility Study at Talise

Background

Vanuatu is overwhelmingly dependent on imported petroleum for its commercial energy needs. It is estimated that transport accounts for about 64% of petroleum fuel use (including jet fuel), electricity generation nearly 30%, and direct household use four percent.

About 61% of the urban households in Vanuatu are electrified while it is only 7% of rural households. Overall, only 25% of the population of Vanuatu has access to grid electricity.

Expanding electricity access sustainably and promoting the use of renewable energy, especially where these can be used effectively in remote locations – are among the infrastructure sector priorities of the Government.

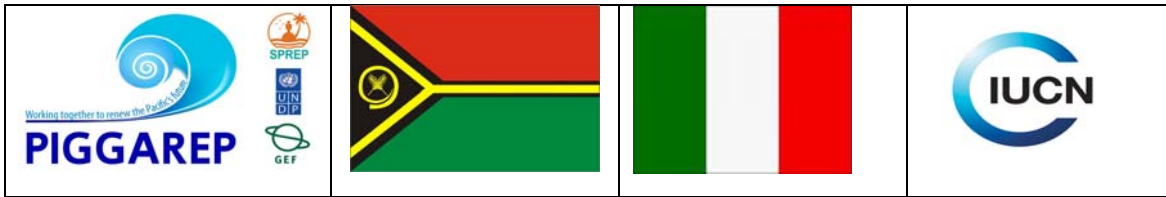
A feasibility study for electrifying the communities of Talise, Narovorovo and Nasawa through hydropower was conducted in October 2001 to March 2002. It is necessary to validate the findings of the study, carry out an environmental impact assessment, and prepare tender documents for implementation and finance

The Target Communities

The communities of Talise, Narovorovo, and Nasaowa are located in an area stretching over 5 kilometres of coastal plain in the central region of Maewo Island, Penama province. They consist of approximately 1000 people in 200 households, a provincial health clinic, three kindergarten buildings, two primary schools, and one rural training centre. The communities also include several community halls, churches and a small Provincial Government office. The major economic activities comprise of the export of cash crops (e.g. copra, kava, cocoa etc.) and the operation of some small businesses (e.g. trading stores, carpentry, mechanic etc.).

Objectives of the Study

The objective of the study is to validate the resource assessment and system design of the 2002 study and revise as needed, taking into account all fuel resource and technology options – thermal (with fossil or biomass fuels), hydro, wind, or a mix thereof for central generation, or, if relevant, the use of solar photovoltaics for households that otherwise cannot be connected to the grid. The revised system design will also be accompanied by an environmental impact assessment as required under Vanuatu laws and a business plan



covering financial, operational, and management issues. The study shall recommend the most appropriate option and prepare tender documents for implementation. The consultant is also expected to remain available subsequently as a transaction advisor, if necessary.

Specific Tasks

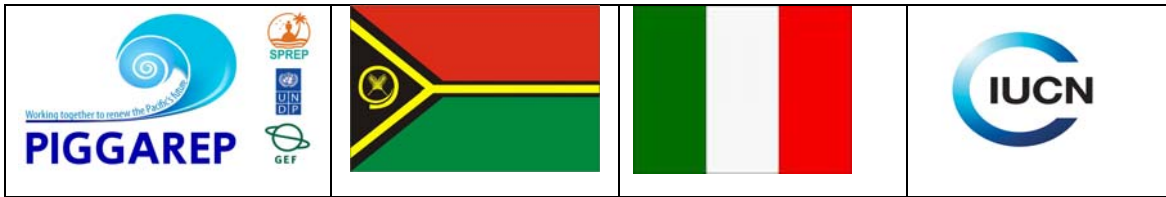
The study shall generally comprise of the following tasks:

- Validate the current and prospective demand for electricity in the target communities;
- Validate or revise as necessary the design, including generation choice (including backup or peaking as necessary) and fuel supply arrangements if appropriate;
- Prepare estimates of capital and operating costs, and design financing and cost recovery alternatives;
- Design corresponding organizational and management alternatives and draft contract documents for preparing the business structure and hiring requisite people (or a draft management contract); and,
- Policy recommendations to the government for price regulation and financing of future investment costs if/when the demand growth so requires.

The above tasks shall be accomplished, but not restricted, through the following activities:

Technical

- Validate the previous assessment of the current and future demand for electricity in the community taking into account changes in population, income, remittances, commercial activity, public or private social service delivery, and availability of information and communication technologies (including television, mobile telephony, internet services);
- Assess the available energy resources and their adequacy to meet the current and future electricity demand of the target communities. This will include hydrological surveys of the identified site so as to review the flow duration curves and the rainfall/flow data identified in an earlier study
- Assess the infrastructure to facilitate thermal power generation as backup or primary source.
- Prepare technical designs of the power generation, transmission and distribution facilities including equipment specifications and standards. In the case of hydro, this should also include civil works design. In the case of thermal alternatives, this should include fuel storage and handling, and, if necessary, solid/liquid waste disposal plans.
- Prepare terms of reference (ToR) for engineering procurement and construction contracts.



- Develop an implementation schedule and full scope of works required for the supply of equipment, civil works and installation of generation, transmission and distribution facilities, including house wiring.

Social

- Assess possible barriers to the acquisition of land and the access to resource / generation sites, highlighting especially any potential land use change caused by the project
- Assess the social benefits of electrification to the target communities, including gender, women, youth and the handicapped and underprivileged
- Assess the potential productive uses of electricity;
- Assess the potential impacts of the electrification options on the livelihoods of the target communities, highlighting particularly how the project is going to improve the social and cultural obligations of the disadvantage groups, especially women
- Assess the capacity of the target communities to sustainably manage their electrification programme and identify required capacity building and awareness initiatives

Economic / Financial

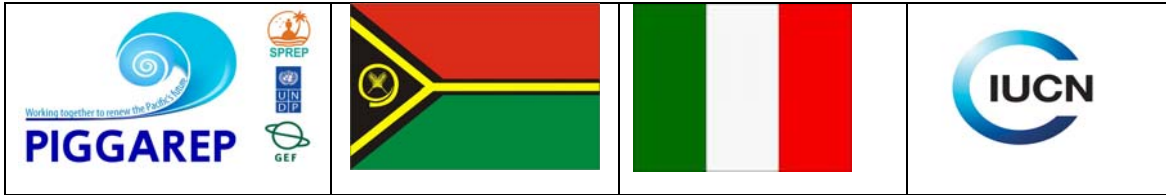
- Conduct an economic analysis of the electrification options including life-cycle costs, benefits and risks and constraints for the project activities and outputs
- Identify economic indicators for the electrification options including, but not limited to, cost benefit ratio, pay back period and internal rate of return
- Assess the economic benefits of the project or components of the project to the disadvantaged, especially women

Environment

- Assess the potential impacts of the electrification options on the environment, in particular to land use
- Assess the compliance of the electrification option with environmental and other safeguards, government clearances and approvals, and identify any inconsistencies with current government policies.
- Assess the potential greenhouse gas savings from the generation options
- Assess potential CDM benefits to the target communities from the electrification options

Institutional / Management

- Identify an institutional and management structure that would best promote the sustainability of the electrification services in the target communities
- Design a monitoring and evaluation plan,



Reporting

The consultant shall provide an updated feasibility report [both hard and electronic copy] so as to enable the Vanuatu Government, SPREP and IUCN to decide on how best to proceed with the installation of the most viable electrification option. The consultant may also be required to make a presentation in Vanuatu to stakeholders. The report shall be submitted in duplicate [both hard and electronic copy] to the Vanuatu Government, SPREP and IUCN.

ANNEX B:

Feasibility Report: Maewo Rural Development Hydroelectric Project – available upon request

Annex C:

Vanuatu Renewable Energy Projects – Italy Pacific SIDS Cooperation Programme – available upon request