ASSISTANCE TO PALAU GOVERNMENT IN THE DEVELOPMENT OF A NATIONAL ENERGY CONSERVATION STRATEGY - REQUEST FOR QUOTATION

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~ Participating Pacific Islands Countries ~
Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu
Request for Quotation

26 September 06

1. The Government of Palau (GoP) through the Director of Energy requested South Pacific Applied Geoscience Commission (SOPAC) to support the development of a Palau National Energy Conservation Strategy (PECS). In the last year the world has experienced a period of price volatility for petroleum that saw petroleum prices increase from US$ 40/bbl in mid March to US$ 73/bbl in May 2006. This international development has been reflected in local fuel and electricity price increases. More than ever, fuel imports are a major component of the country’s import bill. At the same time affordable, stable and secure sources of energy are vital for Palau’s future economic growth and prosperity and it is Government policy to conserve energy and reduce the country’s vulnerability to external forces. The PECS to be supported by PIEPSAP includes a strategic plan with activities, lead agencies, indicators of success, assumptions and risks, and time frames.

2. Quotations are requested from parties that are willing and able to undertake the services as specified in the Terms of References (TORs) in Annex A.

3. Instructions to Offerors:

a. The budget cap for the consultancy is US$ 40,000.
b. The Quotation must cover all the objectives, outputs and activities as specified in the TOR (Annex A)
c. The Quotation must include costs for professional fees, Travel cost will be reimbursed in line with prevailing SOPAC terms and conditions. (A SOPAC standard contract can be provided to bidders on request)
d. US$ only must be used in the Quotation
e. The Quotation 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 preliminary methodology and work plan (maximum 4 pages)
f. The consultancy preferably should commence in November 2006 and must be finalized before end of July 2007
g. The offer must be in the English language only
h. 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
i. If the Quotation is received prior to the formal submission date corrections/modifications can be made up to that date
j. The Quotation must be submitted in electronic format only (Word or PDF-format, 1 MB max) by email to the e-mail address specified in below
k. The consultancy must be undertaken with several field visit to Palau. The exact number of working days will be determined subsequently between the successful Contractor and PIEPSAP;
l. The final working plan will be determined subsequently between the successful Contractor and PIEPSAP;
m. Receipt of quotations will be provided by e-mail
n. Successful as well as unsuccessful offerors will be informed by e-mail as soon as possible
o. Award of contract and Evaluation criteria. Quotations will be evaluated according to the following criteria:
p.  
   i. Price (20 %)
   ii. Relevant Experience in Energy Conservation 30 %
   iii. Relevant Experience in Palau and in the Pacific Region 20 %
   iv. Methodology/Work Plan 30 %
q. Deadline for the submission of quotations is October 20, 2006.
r. Contact Information:

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ANNEX A Terms of Reference

Terms of Reference

Assistance to Palau Government in the Development of a National Energy Conservation Strategy

September 2006
1.0 Introduction

1.1 Background

As a country with a small population of less than 20,000 inhabitants and a total land area of 458 km², Palau has limited indigenous energy resources. Like other PICs, Palau is 100% dependent on imported petroleum fuels in the energy sector. In recognising the critical role that energy plays in the Palau economy, the government considers developing a National Energy Conservation Strategy (PECS). Palau's energy economy consists of an annual supply of approx. 55 ML of diesel fuel and 60 ML of petrol. Approx. 50% of diesel consumption is used to generate electricity. Total generation is in the order of 120 GWh per annum consuming approx. 30 ML p.a.

In the last year, the world has experienced a period of price volatility for petroleum that saw petroleum prices increase from US$ 40/bbl in mid-March to US$ 73/bbl in May 2006.

This international development has been reflected in local fuel and electricity price increases. More than ever, fuel imports are a major component of the country's import bill. At the same time, affordable, stable and secure sources of energy are vital for Palau's future economic growth and prosperity, and it is Government policy to conserve energy and reduce the country's vulnerability to external forces. The Palau Energy Conservation Strategy (PECS) to be supported by PIEPSAP includes a strategic plan with activities, lead agencies, indicators of success, assumptions and risks, and time frames.

1.2 Consultations

A series of consultations were held with the Government of Palau (GoP) since the inception of PIEPSAP. With the issue of Executive Order No. 234 in September 2005, the Government of Palau has created the basis for the implementation of an energy conservation program with clear conservation targets for government service providers. During a joint mission of EU and PIEPSAP in May 2006, it was agreed that while EU EDF9 (REP5) project will focus on the implementation of a solar project connected to the national PPUC grid, PIEPSAP would support the implementation of Executive Order 234, mandating reductions in energy usage within government services. It was also agreed with the Director of Energy, PPUC representatives and the Senior Legal Council of the Office of the President to initiate the Government conservation program as a first step of an overall nationwide energy conservation strategy (PECS).
1.3 Problem Analysis

Palau has limited applications for renewable energy utilization. The PIREP country report estimates that energy conservation measures represent 76% of energy savings in Palau whereas renewable energy were estimated to account for only 24%. With the EDF 9 and possibly EDF 10 focusing on renewable energy, there is clearly a need to embark upon an energy conservation initiative if the full potential to increase Palau’s energy security is to be mobilized. We currently see the following problems and constraints that inhibit energy conservation:

- In Palau there is no success story of efficient energy management that can demonstrate the benefits of energy conservation programs;
- There is no dedicated energy conservation post or officer within the GoP;
- There is insufficient internal capacity within GoP to perform complex tasks such as the preparation of planning documents and documentation needed for the implementation and monitoring of an national energy conservation strategy
- There is no experience in management of ESCO performance contracts
- There is no comprehensive regulatory framework for power sector operations, fuel imports, investments and pricing of energy commodities and services;

1.4 Objectives

The PECS should rest within the general development strategies of the Government and aim to ensure reliable, safe, environmentally acceptable, and cost-effective energy services. The general energy policy framework for Palau is defined in Executive Order 132 “Establishing Energy Conservation Policies”.

The objectives of the PECS are:

(i) Reduce annual government consumption of liquid fuels and electricity by 10 % by 2007.
(ii) Develop a national conservation strategy to reduce Palau's overall energy consumption by 10 % by end of 2008.
(iii) Co-ordinate National Energy Conservation Program with activities in the renewable energy sector, namely with the EU initiatives under EDF 9 and possibly EDF 10
(iv) Improve co-ordination between government agencies and between government policies in order to achieve greater integration in energy management, energy pricing and energy sector regulation.
(v) Support Government in reviewing petroleum procurement process, terminal operation and price regulation.
2.0 Scope of Work

2.1 General

Following the guidance provided by the Executive Order 234 the consultant will describe conservation measures to be taken, allocate responsibilities for activities and define indicators that allow the monitoring of progress and impact in the field of energy conservation.

The PECS will be designed as a multi-stakeholder initiative under the guidance of the Palau Energy Program. It aims to produce tangible benefits for the economy that include cost savings, reduced greenhouse gas emissions and pollution, and improved energy security. It will be essential to the success of the project that the consultant works closely together with PIEPSAP and the stakeholder in Palau to ensure effective knowledge transfer and exchange of information. A task force gather for dedicated work sessions as required and the Government of Palau will provide office facilities during work periods in Palau. It is expected that the assignment will cover a period of 9 months during which several visits to Palau will be necessary.

2.2 Stakeholder Consultation

If a PECS is to be effective, it must reflect of the perspectives of government, the general civil society, utilities, private sector investors, donors and other stakeholders. It must be designed to address their concerns with increasing energy cost and meet expectations with respect to conservation projects. Various ministries and agencies and private sector parties are involved with or have an interest in energy projects in Palau. Upon mobilization, the consultant will consult with these stakeholders to ensure an accurate understanding of their priorities, concerns and preferences. Among those with a particular contribution to make to this assignment are:

- Prime Minister’s Office
- Minister in charge of Energy
- Minister of Education
- Minister Public Works/ Public Works Department
- Ministry for Environment/Climate Change coordinator
- Ministry of Finance and Treasury Department
- PPUC Power Company as a state-owned enterprise that is responsible for electric power generation and distribution in Palau
- Private sector companies, in particular tourism industry, transport sector and fuel suppliers.
The stakeholder consultation process will support the development of a conservation strategy including recommendations on how to enhance the institutional arrangements in Palau. The nature of the services, namely the formulation of a funding strategy, procedures, guidelines and project documentation, demands a close relationship and constant consultation within the team/task force.

2.3 Definition of Baseline

In the next step the consultant will define an energy consumption baseline against which progress in conservation can be measured. The consultant will define conservation units in line with Order 234. The baseline for each administrative/budgeting unit will be the average energy consumption in 2004 and 2005.

2.4 Conservation Targets and Priorities

The Definition of the baseline described above will provide the opportunity to set initial conservation targets for each administrative or budgeting unit. During compilation of the baseline the admin units will be encouraged to identify their own conservation priorities. The consultant will assess these priorities with respect to feasibility and effectiveness.

2.5 Awareness and Education

International experience suggests that the success of energy conservation programs depends more on effective public relation than on the availability of concessionary funding or availability of sophisticated technology. The consultant will therefore support the National Task Force in the development of a broadly based awareness campaign, first addressing government employees but also the general public. The materials produced by the consultant will include but not necessarily be limited to technical information, project descriptions, model calculations of conservation benefits and examples of successful conservation efforts. The possibility to include energy conservation as a subject in science classes in school will also be assessed by the consultant.

2.6 Audit Procedures

The consultant will define audit procedures and reporting lines for a catalogue of recommended energy conservation measures. At the same time there will be on the spot training of local staff in energy auditing and monitoring. Procedures will include two levels of audit:
2.6 A simple walk through audit with the aim to identify straightforward housekeeping measures and

2.7 An in depth audit where the aim is to analyze the viability of investments increasing energy efficiency.

Hardware requirements (measuring equipment) necessary for the execution of energy audits will also be determined. The audit process will lead to the definition of a catalogue of measures for each admin/budgeting unit.

2.7 Assistance to EPM and Task Force

PIEPSAP staff and a specialist energy conservation consultant will support the national task force core team in all matters related to the development and the implementation of the PECS. In order to efficiently prepare and implement the PECS the consultant will perform capacity building in the field of energy planning with a focus on energy efficiency in the power, commercial, household and transport sectors. Specific assistance will include but not necessarily be limited to:

- Data collection and management
- Energy audits and energy demand surveys
- Project design and implementation planning including monitoring and evaluation
- Technology Selection based on technical, economic, social and environmental criteria
- Optimising energy efficiency measures in a cost effective manner considering technology risk and human resource requirements simultaneously.
- Site selection for energy conservation projects
- Public information and education efforts relating to energy conservation and energy efficiency

3.0 Workshops

3.1 PECS Draft and First Workshop

The PECS will have to represent the Government's vision for the development of its national energy sector over a certain time frame. Importantly, it provides a predictable and explicit framework within which public and private energy sector participants can make informed planning and investment decisions in energy conservation.

The PECS will impact on other sectors of the economy. It is for this reason it must be formulated on an inter-sectoral basis to ensure co-ordination with policy framework of other sectors. A first draft of the
PECS will be jointly developed by the consultant the National Task Force and PIEPSAP.

Based on the first draft of the PECS the first workshop will address the following areas.

- Conservation priorities for public sector;
- Incentive and monitoring framework for public sector;
- Institutional structure for planning, implementation and managing energy sector development taking into account the staff and the skill level required and adequate financial resources to support the effective delivery of the services required;
- Need of supportive and consistent legal and regulatory framework;
- A system of energy pricing (including tariffs, import duties, taxes and where appropriate subsidies) which is consistent with energy conservation objectives and transparent and does not favour fossil fuels over renewable energy alternatives;
- Improved endorsement of relevant standards and technologies (labeling, certification)
- Enabling environment to encourage private sector involvement and investment in energy services, including prioritising projects for public and private development;
- Adequate information for the Government and the public to make informed choices regarding energy use.
- Environmental and social standards for energy projects and technologies;
- Development of ownership and implementation models best suited to sustaining energy conservation projects;
- Allocation of resources to energy sector development;

The main outcome of the first workshop is a revised draft of the PECS together with a list of conservation priorities for the public sector. For these conservation priorities, the consultant will develop implementation schedules and indicators.

The Consultant will prepare a workshop report that will cover a summary of the consultations. This report will be circulated to members of the National Task Force with the approval of GoP prior to the second workshop.

### 3.2 Second Workshop

The consultant will conduct a second workshop to review progress on the implementation of the PECS. The workshop will endeavour to fine-tune the PECS to more precisely reflect the issues encountered during implementation of the first series of priority measures implemented under the PECS.
The process of reviewing progress will involve broad input from task force members and senior government officials. The consultant will assist the task force to update the PECS document after the second consultation workshop. The updated PECS will provide a platform for a widening of the PECS and addressing the general public. It is therefore important that the feedback received in the review cycles and at the second consultation workshop is comprehensive and inclusive.

It is proposed to hold the second workshop mid 2007.

### 3.3 Action Plans, Work Programs and Guidelines

The PECS will provide the framework for project implementation. Project implementation will require secondary documents and guidelines. Scope and details of these secondary documents will have to be discussed with GoP and the task force before the consultant engages in drafting of papers. The papers to be drafted by the consultant will include but not necessarily be limited to following:

- Audit guideline (for initial and in depth energy audit)
- Model project document for individual conservation project
- Model financial/economic analysis for PECS component
- Model Contracts (performance contract, consulting contract)
- Work program (annual and mid term)

To give effect to strategies developed under PECS the consultant will also assist in developing implementation procedures designed to bring transparency, order, timeliness, evenhandedness and, where practicable, competition to the process of awarding contracts.
4.0 Outputs/Deliverables

4.1 Inception Report
Comprehensive report on first round of stakeholder consultations detailing the work program for the entire consultancy. The inception report will be delivered six weeks after start of the assignment. The work program presented in the inception report will become binding after approval by PIEPSAP.

4.2 Interim Report
The interim report will cover the work on the PECS and the draft PECS document plus action plans, model contracts, financial and economic analysis and model project documents. The interim report is due 3 weeks after the second workshop.

4.3 Final Report
The final report will cover all work performed under the consultancy. on the PECS and the draft PECS document plus action plans, model contracts, financial and economic analysis and model project documents. The interim report is due 3 weeks after the second workshop.