# QUARTERLY PROGRESS REPORT<sup>1</sup> Second Quarter 2008



<sup>&</sup>lt;sup>1</sup> This report is based on the PIGGAREP 2008 work plan and budget that was agreed to at the Inception Workshop of November 2007 and subsequently endorsed by the Project Steering Committee Meeting of 18 March 2008.

1. Country:	Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Island, Tonga, Tuvalu and Vanuatu		
2. UNDP Award ID:	00044633		
3. Project Title:	Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP)		
4. Implementing Partner:	Secretariat of the Pacific Regional Environment Programme (SPREP)		
5. GEF Implementing Agency: United Nations Development Programme (UNDP)			

6. **Period Covered:**  $1^{\text{st}} \text{ April} - 30^{\text{th}} \text{ June } 2008$ 

## 7. Summary of Overall Project Progress:

The general progress during the quarter was more satisfying than the previous quarter in terms of having completed two activities, which have been reported and evaluated. The general progress towards implementing other project activities on the ground have been pleasing with the launching of five requests for proposals for activities in PNG, Nauru, Tonga and Tuvalu. The general progress per PIC can be seen below:

# <sup>₩</sup>○Cook Is

A Project Activity Summary (PAS) was prepared for a *Topographical & Geotechnical Survey* on a possible wind farm site at Rarotonga. This is a joint effort of the power utility (Te Aponga Uira - TAU) and the Energy Office and is a follow-up to earlier wind monitoring and a study conducted by UNDP and the PIEPSAP/SOPAC. The results showed a good wind regime which would allow wind generation at cost of approximately NZ\$ 0.30 per unit (kWh) as compared to TAU's fuel cost which is already NZ\$ 0.44 per unit.

The Asian Development Bank (ADB) is currently preparing an Infrastructure Development Project for the Cook Is and the ADB and the government have agreed to include the energy and power sectors in the preparation of the project. A wind energy project is currently under preparation as part of this technical assistance funded by ADB. The project has also attracted the interest of the European Investment Bank.

At present there are considerable uncertainty with respect to soil conditions and the topography of the selected wind farm site. They need to be removed through a topographical and geotechnical analysis of the site. The results of the survey will enable the ADB team to more accurately calculate the civil engineering cost of the project and thus determine cost benefit ratio and generation cost more accurately.

TAU and the Energy Office will be responsible for the call for proposals. TAU Board has asked for the call for proposals to be deferred until after the landowners meeting scheduled for Thursday 3 July 2008. This study is expected to take place in August.



Fiji has prepared 2 PAS for a renewable energy *Data Entry Clerk* (DEC) and *Support the Renewable Energy Sector (Hydro, Biogas) in Fiji.* 

The Fiji Department of Energy (DoE) has advertised for the DEC and has received about 200 applications. Short-listing for interview is currently underway. A draft contract between SPREP and the successful candidate has been prepared and forwarded to the DoE. DoE has also been requested to review the PAS to clarify the link between the baseline and incremental activities, as suggested by UNDP-GEF. Similar request has been made of the PAS for the *Support the Renewable Energy Sector (Hydro, Biogas) in Fiji.* 

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The Solar Energy Company (SEC) has developed a PAS to strengthen the effectiveness of the management of the SEC through supporting the development of a software known as the RESCO Manager. The co-financing activity was to be an UNDP-funded training of trainers. The SEC has requested UNDP to integrate the training of trainers with the RESCO Manager. UNDP has then requested SEC to revised the Project Document and that this new ProDoc would have to go through its project approval process. Once this new ProDoc is approved, SEC will then revise its PAS.

# Nauru

The request for proposals for the *Nauru Wind Power Feasibility Study* was launched. The evaluation of the proposals was completed and the contract is ready to be signed pending confirmation of the commitments of the Nauru government to the project. A draft cabinet paper was prepared which the national project coordinator is using to first prepare a brief for the minister whereby the minister will then give direction for the subsequent briefing of the Cabinet.

# Niue Niue

No national activity to date. A mission to Niue is planned for July to discuss possible ways of speeding up the implementation of its PIGGAREP work plan.

# PNG

Two PAS were developed by the PNG Sustainable Energy Limited (PNSEL). One was on a Geothermal Pre-feasibility Study at Sinivit and the other was for a Feasibility Study of a mini PV grid at Mabuduwan.

After launching the call for proposals for the Sinivit study, PNGSEL has advised in May that after consideration of the issues around developing this project for investment, it believed it is better for this early activity to be carried out by PNGSEL itself. Under these circumstances it wished to withdraw this activity from PIGGAREP but still wish to keep the option of obtaining PIGGAREP funding for a later activity on the Sinivit Project.

The call for proposals for the feasibility study of a mini PV grid at Mabuduwan was completed and evaluated. The PAS for this activity has not clarified the link between the baseline and incremental activities, as suggested by UNDP-GEF, in particular, a commitment to invest on the project if the study proves feasible. PNGSEL advised that the Board of the PNG Sustainable Development Programme will decide on this in its meeting in early July.

# Samoa

April 25<sup>th</sup> was dedicated as the Samoa National Energy Awareness Day (SNEAD) with activities targeting mostly school children. The theme for this event was "*Energy for Life, Use it Wisely*". The events during the SNEAD involved speech, poster and renewable energy model competitions among the primary and secondary schools. About 400 students participated in this event plus members of the general public who were mostly part-time participants throughout the event. The report on this event and its evaluation by the PIGGAREP PMO can be viewed at the PIGGAREP web page <u>http://www.sprep.org/climate\_change/piggarep.htm</u>

# Solomon Is

A draft PAS was received to study the feasibility of a Micro Biofuel Enterprise in the Solomon Is. This PAS was reviewed and assessed and sent back to the Solomon Is. The project proponents have not updated it. The major concern, as is common with some other PAS, is the placement of the incremental activity at the front to be followed by the co-financing activity. This does not follow the incremental / value added logic because if the outcome of the incremental activity is not feasible then the co-financing activity will not take place, resulting in a waste of GEF resources.

The Solomon Is Electricity Authority (SIEA) submitted a draft ToR for a study to establish a template for RE pricing. It was raised with SIEA the importance of ensuring that this study will not be a repetition of what has already been covered in the 2007 PIEPSAP base tariff review and to create the linkage between the two studies. It was also suggested to SIEA that the objective of "designing a template" be extended to cover three areas suggested in the PIEPSAP study:

- □ Least cost generation plan to reduce diesel dependence
- □ SIEA's technical criteria for the power it will purchase
- □ Pricing template or pricing framework or the avoided costs

There has not been any further communications from SIEA on this study.

# Tonga

The request for proposals for the review of the Ha'apai Solar Electricity Incorporated was launched during the quarter. The Tonga Energy Planning Unit (EPU) considered the financial proposals to be too high and therefore explored the opportunity of engaging a team of local experts to do the review. This involved using the services of a local teacher whose MSc thesis was based on the HSEI and was assisted by SOPAC with her study. Unfortunately, she declared herself unavailable at the last minute due to her teaching commitments.

Tonga has proposed the rehabilitation of the PV systems installed in 2 islands in the Ha'apai Group that were electrified before the HSEI was established to be funded under the IUCN/Italian programme. The Tonga proposal also included the electrification with solar PV of one island in

the Ha'apai group. Since IUCN would like to conduct a feasibility study of this rehabilitation / new electrification, Tonga has been advised to consider doing the HSEI review and the IUCN study as just one study under the PIGGAREP. The IUCN project manager will visit Tonga early in the third quarter and this joint study will be discussed with the EPU in Tonga.

Tonga also submitted a draft PAS for a wind power feasibility study. This PAS was reviewed and returned to Tonga. Tonga has proposed to the European Union that its priority project in the EDF 10 (approximately 5.9 million Euro) will be wind power. A high level delegation from Tonga will discuss this project with the EU early in the third quarter and the PIGGAREP's value added activity will be revised accordingly.

Tuvalu

The request for proposals for the study of establishing and operationalising a Renewable Energy and Energy Efficiency Unit within the Tuvalu Electricity Corporation was launched during the quarter. The consultancy contract has been signed and the study is expected to begin in July and to be completed by end of August 2008.

# Vanuatu

The Vanuatu Energy Unit (EU) submitted a draft PAS to review its rural electrification policy. It was later discovered that AusAID is funding an Energy Advisor for the EU and the role of the advisor will include reviewing the REP.

The EU then developed a PAS for a review of a hydropower study that was conducted at Talise in 2001-2002. Several revisions of the PAS were made pending the receipt of the study report, which is only available in a hard copy. However upon receipt of this report, it was obvious that some bias was given to hydropower, that the study did not look at other electrification options and that it was not a full fletched economic feasibility study. Vanuatu's proposal to the IUCN/Italy was to construct this hydropower project.

It was therefore raised with the EU and IUCN that the ToR be expanded to include other electrification options and for a full technical, economic and environmental assessment to be made of the proposed project. A revised ToR has been sent to the EU and there has not been any further input from Vanuatu since the Acting Principal Energy Planner is fully tied up with other activities. The IUCN project manager will visit Vanuatu in late July and will finalise the ToR with the EU.

Vanuatu's work plan includes community awareness activities for VANREPA. VANREPA however felt it should first develop a training strategy and supportive educational resources for its RE Development Activities. The ToR was drafted by a potential consultant. VANREPA was advised that the draft ToR should reflect its needs and not the capability of the potential consultant. No further developments from VANREPA on finalising the ToR and drafting a PAS.

# Regional

Completed conducting a workshop on Small Islands States Capacity Building Workshop on Renewable Energy Technology Applications 21-25 April 2008 in Port Vila, Vanuatu. The objectives of the workshop were to:

- To strengthen the capacity in the SIS to Productively Utilize Renewable Energy (PURE) services from standalone and grid-connected PV, wind and biofuel through the sharing of RE experiences, and
- □ To enable SIS to observe and to learn from the biofuel and wind power developments as well as the RE developments in Australia and other PICs

A total of 27 people participated in the workshop and evaluated the workshop as being highly satisfactory. The workshop report can be viewed at the PIGGAREP web page <u>http://www.sprep.org/climate\_change/piggarep.htm</u>

## 8. Specific Outputs/Results Achieved (As per quarter work-plan):

The Specific Outputs / Results achieved during the quarter, as per the overall PIGGAREP Immediate Objectives / Outcomes and Indicators are covered in Table 1 below:

# TABLE 1: REPORT ON 2 QTR ACTIVITIES BY KEY PROJECT OUTCOME

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
		<b>DMES 1</b> : Improved knowledge at arcial RE applications on the grou	1
<b>INDICATOR</b> : At least 10 rehabilitated / upgraded by		nitoring studies completed by 2010	0. At least 3 RE projects
CK-1: Mangaia Power System Upgrade	10,000	Continuing from 1 QTR 08 <sup>2</sup> . A Mangaia Power Network Extension Upgrade Project Feasibility Assessment was conducted in late Feb 2008. Study included a review of documents relating to the power sector on Mangaia, including the Mangaia Power Upgrade 2007 feasibility study carried out by SOPAC. Report is expected in April 2008. Consultancy cost is approx. NZ\$20,000	As in 1 QTR 08, a PAS is yet to be developed.

 $<sup>^2\,</sup>$  Throughout this report  $\,1\,$  QTR 08 means First Quarter of 2008, 2 QTR 08 means Second Quarter of 2008 and so on.

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
CK-8: Wind Farm integration study	15,000	The Asian Development Bank (ADB) have agreed to include the energy and power sectors in the preparation of the Cook Island Infrastructure Development Project PPTA COO 40287-01. The Rarotonga wind energy farm is currently under preparation as part of this technical assistance funded by ADB.	A PAS was prepared for the conduct of a topographical and geotechnical survey of the proposed wind farm site. The PAS was endorsed by the PSC. A meeting with the landowners will be held in early July before the call for proposals to conduct the study.
CK-11: MAM Wind resource assessment	5,000	A wind monitoring station on Aitutaki will be shifted to Mitiaro during the 3 QTR 08. Energy Division is paying the transportation and installation cost.	The Energy Unit has indicated that this is a priority activity to follow the Rarotonga topographical and geotechnical study. A PAS will be prepared during the 3 QTR 08.
FJ-1: Hydro resource assessment in the upper Navua River Areas	500	Co-financing is from the DoE's hydro and biogas development budgets. <i>Hydro Resource Assessment:</i> Survey of eight hydro sites (Waivaka; Wainawaqa, Nauluvatu, Nacula, Vugalei, Nabalasere, Namalata, Namako). Installation of monitoring station and monitoring of hydro resources for 3 years Detail designing of 2 micro hydro Projects (Buca & Naikorokoro) <i>Establishment of Biogas</i> <i>Market:</i> Master Biogas Builder to train the trainers on the construction of digesters.	Activity has been redesignated as Supporting the Renewable Energy Sector (Hydro, Biogas) in Fiji. Did not start in 1 QTR 08 as planned. A PAS was drafted, reviewed by the PMO and UNDP-GEF and endorsed by the PSC. Awaiting DoE to finalise the PAS, including ToRs for the biogas training and construction and the quotes for the hydro monitoring and biogas supplies.
NA 1/08 - Expanding the Renewable Energy Market in Nauru (from solar photovoltaic to include wind power)	80,000	REP-5 activities are used as co-financing. A tariff review study is planned for August 2008 (60,000 €) Energy Officer recruited in Nov 2007 (40,000 €)	PAS was prepared, finalised and endorsed by PSC 1. Tender for the wind power feasibility study took place during 2 QTR 2008. Evaluation has been completed and successful bidder has been notified.
		Tender for the 40 kWp grid-	Signing of the consultancy

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
		connected PV launched. Contract to be awarded by end of April 2008, installation by January 2009 (500,000 €).	contract is awaiting the completion of ministerial and cabinet briefings regarding Nauru government's commitments to the project, including making land available for the installations of the monitoring towers.
Supporting the technical design of the Mabuduwan Solar Power Station. (Introduced into the work plan in 2008)	25,000	The board of the PNG Sustainable Development Programme will meet early in 3 QTR 08 and will decide on the commitment to fund the hardware component of this project.	The call for proposals and the evaluation of the proposals have been completed. Signing of the contract is awaiting confirmation of the co-financing activity.
PN-2: Investigating The Possibility Of Using Coconut Oil As A Substitute Fuel For Diesel Engines	6,148		Was to have completed 1 QTR 08. A PAS is yet to be developed.
PN-3: Rehabilitation of the Bogo School Micro Hydro Power Scheme	2,673	Co-financing is from the Italian-PIC Cooperation Programme (IPCP). Communiqué has been signed, proposal has been developed and submitted.	Was to have completed 1 QTR 08. A PAS is yet to be developed.
PN-4: Solar Photovoltaic Project for the Baiteta Village Aidpost In the Madang LLG, Madang Province	2,774	Co-financing is from the Italian-PIC Cooperation Programme (IPCP). Communiqué has been signed, proposal has been developed and submitted.	Was to have completed 1 QTR 08. A PAS is yet to be developed.
PN-5: Clinical Waster Gasifier Project for Asaro Health Centre in the Eastern Highlands Province	1292		Was to have completed 1 QTR 08. A PAS is yet to be developed.
SA-4: 2.4.1 Coordinate the development of an RE programme with the RDIS	1,000		Was to have completed 1 QTR 08. A PAS is yet to be developed.
SI-12: RE Conservation and Efficiency Programmes	300	Energy Office budget for RE activities is to be the co-financing.	Supposed to start in 1 QTR 08. A PAS is yet to be developed.
		New govt budget (key co- financing) was tabled in Parliament in March 2008 and still no advice from the Solomon Is on the outcome.	
SI-22: Solar system grid	2,500		A PAS is yet to be developed.

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
connection at SITAFE TO-2: Technical evaluation of the solar installations	9,000	Co-financing is from the IPCP <sup>3</sup> . A project concept to rehabilitate the Mango and Mo'unga'one PV installations and to electrify Lofanga Is with solar PV has been approved by the Italians.	Carryover from 1 QTR 2008. Call for proposals to review the HSEI was made. Through consultations with IUCN and the EPU, this review is to be replaced with a full feasibility study EPU is to prepare a revised PAS.
TO-12: Wind resources assessments	2,500	Tonga's priority in the EDF 10 renewable energy programme is wind power. Tonga does not agree with the findings of the EU project identification study. A high level delegation from Tonga is to convey this in person to the EU in Suva in July.	Was to have started in 1 QTR 08. A PAS has been drafted and commented on by the PMO. Revision of the PAS by the EPU is to be conducted after the meeting with the EU in Suva.
TO-14: Biofuel feasibility study	10,000		Was to have started 1 QTR 08. A PAS is yet to be developed.
TV-4: Support to TEC's outer island grid connected renewable energy projects	5,000	Installation of the 40 kW grid connected PV system was completed during the quarter. Project costed approximately USD 412,000. Further grid connected solar PV in the outer islands have been discussed under the IPCP.	A PAS was developed and approved by the Project Management Office (PMO). Activity was conducted in January 2008. The project report is yet to be submitted to the PMO. A new PAS is to be drafted for the IPCP project.
VU-14: Review of the 2002 Talise Mini Hydro Feasibility Study	9,000	Talise has been proposed and approved for funding under the IPCP.	A PAS was drafted and reviewed by the PMO. In consultation with IUCN and the Energy Unit, the ToR for the study was modified to cover other electrification options at Talise. The PAS will be finalised following a visit by the IUCN to Vanuatu in July.

<sup>&</sup>lt;sup>3</sup> Italy-Pacific Cooperation Programme. Tonga's IPCP (as well as Palau's, RMI's, Samoa's, Tuvalu's and Vanuatu's) are managed through IUCN Oceania.

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTI		<b>DMES 2</b> : Expansion of the marke	
INDICATORS: At least or	ne RET comp	any in 3 PICs by 2012, At least 1	00 MW of additional RE-based
		ion litres of copra oil use as fuel b	by 2012, 4 feasibility studies
completed by 2010 and 2 R			Summand to have started in 1
SI-3: Feasibility study of economic of scale of	4,000	Energy Office budget for RE activities is to be the co-	Supposed to have started in 1 QTR 08. A PAS is yet to be
production/use of coconut		financing.	developed.
oil /bio-fuel as fossil fuel		interioring.	ae veropea.
substitute in power		New govt budget (key co-	
generation in rural areas.		financing) was tabled in	
		Parliament in March 2008 and	
		still no advice from the Solomon Is on the outcome.	
SI-5: Feasibility study for	2,500	Energy Office budget for RE	Supposed to have started in 1
mini hydropower plants	2,500	activities is to be the co-	QTR 08. A PAS is yet to be
on Rori (Malaita) under		financing.	developed.
Rural Electrification			
Framework		New govt budget (key co-	
		financing) was tabled in Parliament in March 2008 and	
		still no advice from the	
		Solomon Is on the outcome.	
SI-11: Support to	2,000	Energy Office budget for RE	Supposed to have started in 1
investment Development		activities is to be the co-	QTR 08. A PAS is yet to be
Projects		financing.	developed.
		New govt budget (key co-	
		financing) was tabled in	
		Parliament in March 2008 and	
		still no advice from the	
		Solomon Is on the outcome.	
SI-17: Feasibility study of	1,000		A PAS is yet to be developed.
economic of scale of production/use of coconut			
oil /bio-fuel as fossil fuel			
substitute in power			
generation in outer			
islands SIEA power			
stations.	2 000		A DAC is rest to be developed
SI-18: Feasibility study of solar Grid interactive	2,000		A PAS is yet to be developed.
system for National			
Referal, Lata, Kira Kira,			
Auki, Malu'u,Gizo,			
Tulagi and Helena Goldie			
Hospitals	2 000		
SI-20: Micro Biofuel Enterprise Development	2,000		A PAS is yet to be developed.
SI-26: Micro hydropower	2,000		A PAS is yet to be developed.
prefeasibility study at	2,000		
vaious sites at Atoifi			
Hosp., Kounabusu			
(Kwaio), Manawai			

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
(upgrade), Masupa'a,			
River Side and Rara			
village, all in Malaita			
SI-27: Biofuel Study &	1,000		A PAS is yet to be developed.
Development			

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
implement RE		<b>DMES 3</b> : Enhancement of institut	
	nave establish	et designed/implemented by local ned national energy coordination of	experts in 4 PICs by 2012 committees, have clear mandates,
FJ-7: Holistic training provided for staff members of the Energy (economics, accounting, policy, management, and other technology related training)	10,000		Supposed to have started 1 QTR 08. Was the top priority project but Fiji DoE advised that this activity has been reprioritised. A PAS is yet to be developed.
KI-16: Migrating RESCO Manager to an open source platform.	6,000	A UNDP Training of Trainers project plus the Solar Energy Company's funding of IT contracts are the co-financing activities. Due to changes in the way SEC wanted to carry out the training, the ProDoc has been changed and need to be reprocessed and approved. SEC has signed consultancy Contracts with Marc Torra Griso to make improvements to the RESCO Manager. A contract has also been signed with Software Factory Ltd of Suva to correct minor problems and bugs in the RESCO Manager.	A draft PAS was prepared and reviewed. PAS will be further reviewed based on the revised ProDoc.
NI-4: Capacity Building, NPC/Private Sector	2,000		Supposed to have started 1 QTR 08. A PAS is yet to be developed. PMO visit planned for 3 QTR 08 to provide assistance.
NI-6: Energy Coordinator / AFO	3,750		A PAS is yet to be developed. PMO visit planned for 3 QTR 08 to provide assistance.
SA-5: Establish the	2,500	ADB-funded power sector	PIGGAREP value-added

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
Designated National Authority (DNA) for CDM activities		expansion programme.	activity is to be finalised with the Electric Power Corporation. A PAS is yet to be developed.
SI-14: Setup of RE Unit	2,000	Energy Office budget for RE activities is to be the co- financing. New govt budget (key co- financing) was tabled in Parliament in March 2008 and still no advice from the Solomon Is on the outcome.	Was to have started 1 QTR 08. A PAS is yet to be developed.
TO-1: Joint annual committee meetings	Subsumed i	nto TO-2: Technical evaluation o	f the solar installations
TV-6: Training of TEC Outer Islands Supervisors on RE Technology	20,000	Installation of the 40 kW grid connected PV system was completed during the quarter. Project costed approximately USD 412,000.	Was to have been completed on 1 QTR 08. A PAS was drafted and reviewed. Will be finalised in light of the development of the IPCP project.
		Currently being reconsidered to be a part of the IPCP.	i or projecti
VU-11: Review of the Rural Electrification Policy	6,000	AusAID is funding an Energy Advisor to assist the Energy Unit to review the RE Policy.	A PAS was developed and reviewed. This activity will be revised once the Advisor is on board and his/her work plan is finalised.
Assistance to establish a Ministry of Environment in the Solomon Is.	50,000	SPREP assisted to establish the Ministry of Environment, Conservation and Meteorology (MECM) with a Corporate Plan for 2008 – 2010. A new Climate Change Division (CCD) within the ministry has been established to maximize national benefits from adaptation and mitigation projects such as the Pacific Adaptation to Climate Change (PACC) and the PIGGAREP.	

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
<b>IMMEDIATE OBJECTI</b> and new RE projects	VES/OUTC(	<b>DMES 4</b> : Improvement of the av	vailability of funding for existing
<b>INDICATOR</b> : At least US	\$100 million	of new investments in RE by 20	)15
SA-7: Establish a Clean Energy Fund	2,500	ADB-funded power sector expansion programme.	PIGGAREP value-added activity is to be finalised with the Electric Power Corporation. A PAS is yet to be developed.
SA17: 1.4.1 (3.4.2) Coordinate the development of an Energy demand and supply database - collection of RE data.	825		Was to have been completed 1 QTR 08. A PAS is yet to be developed.
SA-18: Develop funding proposals	1,000		A PAS is yet to be developed.
SI-6: RE Electricity Pricing Study	2,500		A high priority activity which was to have started 1 QTR 08. A ToR was drafted with suggestions to relate is closely with the PIEPSAP's base tariff study of 2007. No further progress from the Solomon Is Electricity Authority.

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTI	VES/OUTCO	OMES 5: Strengthened legal and	regulatory structures in the
energy and environmental s	sectors		
<b>INDICATORS:</b> At least 1	0 PICs have a	adopted Energy Policies and Actio	on Plans by 2012.
3 PICs with draft Energy L		2011.	
FJ-8: Review/adopt/enact	2,500		Was to have started 1 QTR 08.
relevant policies,			A PAS is yet to be developed.
frameworks, legislations			
for RET; Enactment of			
Fiji's Energy Bill			
NI-7: Develop renewable	1,500		Was to have started 1 QTR 08.
energy plans and targets			A PAS is yet to be developed.
for 2010, 2020 and 2050			
SA-19: 1.2.2 (2.1.4)	1,500		Was to have completed 1 QTR
Develop an Energy Bill -			08. A PAS is yet to be
RE component			developed.
SI-16: Energy	300		Was to have started 1 QTR 08.
Supply/Demand Studies			A PAS is yet to be developed.
SPREP's assistance to	60,000	The Tuvalu Environment	
draft the Tuvalu		Protection Bill has passed in	
<b>Environment Protection</b>		its Secondary Reading in June.	
Bill.		By the end of this year the Bill	
		will go through its final	
		reading and then it will	
		become an Act. Promotion of	

2 QTR Activities	Budget	Status of co-financing	Status of incremental
	(USD)	activities	activities
		RE and reducing carbon emissions are stipulated in the Bill.	

2 QTR Activities	Bud (US		co-financing vities	Status of incremental activities
IMMEDIATE OBJECTI stakeholders			awareness and	d knowledge about RE among key
	s undertake lo	cal training on RE b	y 2012. Comp	prehensive annual RE awareness
programmes in 10 PICs by				
CK-17: Support to the Committee working on renewable energy standards	750			Was to have started 1 QTR 08. A PAS is yet to be developed.
FJ-6: Holistic training provided for Energy staff, rural communities, village technicians and relevant stakeholders of the Renewable Energy sector	5,000			Was to have started 1 QTR 08 but later reprioritised. A PAS is yet to be developed.
KI-4: Technical visits to PV-Grid developments in Tuvalu.	10,000	Co-financing is fro IPCP. Communique signed, proposal has developed and sub	ié has been as been	Was to have completed 1 QTR 08.
KI-13: Technical visits to biofuel developments either in Vanuatu and Majuro or Philippines	10,000			A PAS is yet to be developed.
KI-22: Public awareness campaigns	500			A PAS is yet to be developed.
NA-4: Create an 'Energy and Environment' curriculum for the schools	10,000	REP-5 awareness a the co-financing. A visited Nauru in Fe start designing the awareness activitie expected in 2 QTR	A consultant eb 2008 to REP-5 es. Report is	This activity has been reprioritised and replaced with a wind power feasibility study (see NA 1/08 above).
SA-1: Capacity Building training needs on RETs (ADB)	1,000			A PAS is yet to be developed.
SA-2: Training programme on RETs (ADB)	1,000			A PAS is yet to be developed.
SA-21: National energy awareness campaign day	10,000	The Samoa project under the IPCP has approved for fundi Italians.	s been	Activity has been completed, evaluated and reported (see http://www.sprep.org/climate_ch ange/piggarep
		Ministry of Finance contributed cash and assistance towards	nd in-kind	

2 QTR Activities	Bud (US		g Status of incremental activities
		awareness day.	
SI-24: Technical Support to the SITAFE Renewable energy library centre	2,000		A PAS is yet to be developed.
TO-17: RE Awareness	1,500		Was to have started 1 QTR 08.
Programme			A PAS is yet to be developed.
TO-09: Training on RE for AMREC	15,000	Activity is to enable local contractors to compete for the RE contracts in Tonga's EDF 10 RE project.	A PAS is yet to be developed.
VU-17: Community Awareness	1,500		A PAS is yet to be developed.
RE 01-08: SIS Capacity Building Workshop on Renewable Energy Technology Applications	70,000	USD 50,000 has been secured from the government of Taiwan for this activity.	Activity has been completed, evaluated and reported (see http://www.sprep.org/climate_ch ange/piggarep

2 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIV	VES/OUTCO	OMES 7: Effective Management	of the PIGGAREP
<b>INDICATORS:</b> Project A	ctivities are i	mplemented within budget and or	time, in close collaboration with
other related and parallel ac	tivities in the	e PICs.	
РМО	66,560	The PMO conducted the SIS Capacity Building Workshop with support from Taiwan, REEEP, SOPAC and UNELCO. Taiwan also funded a consultant to take	Completed the second Project Steering Committee meeting on 15 <sup>th</sup> April. Met a representative of JICA on 30 April to discuss PIGGAREP
		footages at the workshop, RE sites at Vanuatu and including interviews with participants. These footages will be used in an UNDP film of climate	assistance to Tuvalu to ensure no duplication with future JICA assistance. Finalised and launched the call
		change that will be launched at the Forum meeting at Niue during 3 QTR 08.	<ul><li>for proposals for the following activities:</li><li>Wind Power Feasibility</li></ul>
		SPREP assisted to establish the Ministry of Environment, Conservation and Meteorology (MECM) in the Solomon Islands with a Corporate Plan for 2008 – 2010. A new Climate Change	<ul> <li>Study - Nauru</li> <li>Geothermal Study – PNG</li> <li>Centralised solar PV feasibility study – PNG</li> <li>Review of the Ha'apai Solar Electricity Incorporated – Tonga</li> <li>RE &amp; EE Unit study -</li> </ul>
		Division (CCD) within the ministry has been established to maximize national benefits from adaptation and mitigation projects such as the Pacific Adaptation to Climate Change (PACC) and the PIGGAREP.	Tuvalu The PM was invited and paid by ADB to participate at a workshop on Financing Village Level Energy for Asia / Pacific in Manila on 9-11 April This

2 QTR Activities	Budget	Status of co-financing	Status of incremental
	(USD)	activities	activities
		Through SPREP's assistance, the Tuvalu Environment Protection Bill has passed in its Secondary Reading in June. By the end of this year the Bill will go through its final reading and then it will become an Act. Promotion of RE and reducing carbon emissions are stipulated in the Bill. Reviewed a report on a Strategic review of REEEP's priorities in the Pacific, prepared by IT Power (Australia) Pty Limited in conjunction with Keith Baker, for the Department of Environment, Water, Heritage and the Arts (DEWHA). The report presents an evaluation of the research undertaken into energy programs and needs in the Pacific, and is intended to inform the 7 <sup>th</sup> project funding round of the Renewable Energy and Energy Efficiency Partnership (REEEP) scheduled for the first half of 2008. Continued the co-financing discussions with the Renewable Energy and Energy Efficiency Partnership (REEEP) as well as IUCN. The PMO continued to receive technical support from other programmes at SPREP, in particular the Publication and Media Section. A press release was made of the SIS workshop in Vanuatu on 22 April. The workshop was also covered in SPREP's Highlights for April. Assistance was also provided in developing the PIGGAREP web-page which is expected to be on air early in 3 QTR 08.	<ul> <li>in Manila on 9-11 April. This provided an opportunity to discuss possible joint CDM activities with ADB.</li> <li>A progress meeting was held with UNDP Samoa on the 2<sup>nd</sup> May.</li> <li>The PM participated at an IUCN consultation meeting on 6-8 May about its Italian- funded activities in Samoa, Tonga and Vanuatu. The IUCN meeting was followed with an informal CROP EWG meeting about REM/PEMM 2009.</li> <li>PM participated in a Samoa Electric Power Corporation's (EPC) roundtable discussion on community consultation / involvement in hydro development on 22 May.</li> <li>The PM participated in a roundtable discussion of Samoa's GHG inventory report for its Second National Communication on 26<sup>th</sup> May.</li> <li>Met the IUCN EESLI Project Coordinator on 18<sup>th</sup> June as part of his consultations in Samoa. Discussed the joint position concept, outcome IUCN's meeting with the Italians and the joint review meeting in November. Also discussed possible joint activities in Samoa, Tonga, Tuvalu and Vanuatu.</li> <li>A consultation meeting was held on 19 June with a FAO- funded consultant doing a biofuel study for EPC. PIGGAREP invited IUCN/EESLI to this meeting.</li> <li>PM provided inputs to a SOPAC consultancy study on Coordination and Implementation Mechanisms</li> </ul>

2 QTR Activities	Budget	Status of co-financing	Status of incremental
	(USD)	activities	activities
			Implementation Mechanisms for Regional Energy and Pacific ACP EDF 10 Energy Initiatives.

An appreciation of the general progress with each country's progress with its 2008 Work Plan can be seen in Annex 1.

# 9. Challenges/Issues Encountered

No major challenges were encountered during the quarter except for the relative low delivery rate at 29% (please refer below). An indication of this problem is the many instances where 'A PAS is yet to be developed' (please refer to Table 1: Report on 2 QTR Activities by Key Project Outcome). Combined with the also relative low delivery rate for first quarter 2008 (at 17%) it seems that the 2008 work plan and budget are too ambitious. This is in terms of the number of activities in each PICs work plan, their relatively small budget and the capacity to do the required preparatory work on these activities (like drafting the Project Activity Summaries, Terms of References, etc).

The experiences from the SIS RE Capacity Building workshop conducted during the quarter showed that some PICs prefer that similar national activities be made a sub-regional or regional activities.

# 10. Solutions Applied (to address issues and challenges)

A possible solution to the low delivery rate includes strengthening the PMO's capacity to assist with the preparatory work required to get activities designed. In this context in the beginning of next quarter SPREP will undertake the review of the PMO's capacity to effectively manage the project that was agreed to at the inception meeting in November 2007 and share the findings and recommendations with countries and members of the PSC for consideration. In addition it is preliminary proposed that the work-plan for 2009 have fewer, more focused/clustered and bigger in-country activities and where appropriate have an increasing number of sub-regional and regional activities.

Serious consideration should now be directed to the conduct of the first review meeting and the formulation of the 2009 work plan and budget. IUCN has agreed in principle to have a joint meeting in November. This should be an opportunity to discuss joint activities with IUCN, other co-financing agencies and the PICs but also to introduce "relevant" sub-regional and regional activities into the work plan in accordance with the adopted project support criteria.

# 11. Recommendations for Future Action/Work Plan Quarter 3/2008

In order to keep the length of this report short, please See QTR 3 column of Annex 1.

# 12. Project Finance

The total budget for the quarter was USD 244,560. Total expenditures were USD 70,905 (or 29% of the budget) with USD 30,178 being PMO-related costs and USD40,727 being for PICs project activities. An analysis of the project finance to the end of the quarter can be seen in the following graphs:









This is the first quarter that expenditures are made on PIC project activities and are therefore charged against each PIC's indicative allocation. It is expected that PIC expenditures will continue to increase in 3 QTR 08 due to the implementation of more PIC activities in the coming quarter.

The estimated total budget for the next quarter is US\$291,337 and 82% is for country activities while the rest is for the PMO. An advance of US\$117,682 is requested for the 3 QTR 08. With this advance, the drawdown on the PIGGAREP 2008 budget would be US\$357,695 out of a total budget of US\$1,119,700 with only a quarter remaining before the end of the year. Obviously, the spending in 2008 would be less than 60% of the budget. On the other hand, the drawdown of the PIGGAREP funds on its first year of operation (July 2007 – July 2008) has now reached the half a million mark with US\$518,857.

The financial report for the quarter is attached as Annex 2.

13. **Report Prepared By:** Solomone Fifita Project Manager 15 July 2008

				Yea	r 1 Quar	ters			
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
CK1	Mangaia Power System Upgrade	Technical	French and Aust govts, SOPAC and MIC	10,000	10,000			20,000	Based around Vergnet Pacific offer to assist in rectifying the problems at Mangaia.
CK4	Public Awareness Campaigns	Awareness	Energy, Media & NGOs			2,500	2,500	5,000	With support from Environment and its Climate Change activities
CK8	Wind Farm integration study	Technical	Energy / TAU	15,000	15,000			30,000	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.
CK11	MAM Wind resource assessment	Technical	Energy, MET & OMIA		5,000	5,000	5,000	15,000	For Mauke, Atiu & Mitiaro
CK13	Exposure visit to the recycling facilities for cooking oil at USP and NZ	Awareness	Peter Marett				5,000	5,000	To address the environment problems relating to the disposal of used cooking oil.
CK16	RE / Green Award Programme for the tourism sector	Awareness	Energy / Tourism				5,000	5,000	
CK17	Support to the Committee working on renewable energy standards	Technical Awareness	Transport / Energy	750	750	750	750	3,000	
	Sub-total Cook Is			25,750	30,750	8,250	18,250	83,000	

## ANNEX 1: TABLE 2: REPORT ON GENERAL PROGRES BY COUNTRY'S 2008 WORK PLAN

General Progress: The general progress with the implementation of the 2008 Work Plan has been rather slow but satisfactory.

#### Mangaia Wind Power Rehabilitation

At the last quarter of 2007, the company that supplied and installed the Mangaia wind power project (Vergnet Pacific) offered to provide the following assistance:

- VERGNET sends free of charge parts ex-works France to fix the turbines
- VERGNET sends work force to fix the turbines and only charge per diem and airfare
- VERGNET performs another training on this machine, with a special focus on the points and issues mentioned by the Cook Is authorities.

This offer is estimated at US\$150,000 and is currently being considered by the Cook Is authorities. Meanwhile, a Feasibility Assessment of a Mangaia Power Network Extension Upgrade was conducted in late February. Study included a review of documents relating to the power sector on Mangaia, including the Mangaia Power Upgrade 2007 feasibility study carried out by SOPAC. The Study Report is expected in April and this study is estimated at NZ\$20,000.

#### Pacific-Italy Cooperation Programme (PICP)

Cook Is has signed the cooperation's communiqué late in 2007. Four proposals with a total value of US\$1 million were drafted and submitted in 1 QTR 2008. The proposals include:

- Rehabilitation of Mangaia Wind Power
- Installation and Commissioning of a Grid Connected Hybrid System (Solar PV & Diesel) for Mitiaro
- Development of a National Renewable Energy Plan, 4) Installation and Commissioning of a Grid Connected Hybrid System (Solar PV & Diesel) for Pukapuka/Nassau and
- Installation and Commissioning of a plant that provide for the processing of copra for biofuel on Pukapuka.

#### PIGGAREP

The Cook Is power utility (Te Aponga) participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

A Project Activity Summary (PAS) was prepared for a *Topographical & Geotechnical Survey* on a possible wind farm site at Rarotonga. The call for proposals will be in early 3 QTR 08 and the study to be completed before end of 3 QTR 08.

				Yea	r 1 Quar	ters			
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
FJ1	Hydro resource assessment in one of the potential hydro site	Technical	DoE	500	500	500	500	2,000	This activity involves the installation of a lor term monitoring statio at a hydro site that has been deemed viable for further developments
FJ4	Strengthen energy statistics in terms of renewable based data (prices, capacity, supply, potential, etc, etc)	Technical	DoE			5,000	5,000		This is to fund surveys and workshops to be conducted with all relevant RE stakeholders and also the finalization of the Renewable Energy Database
FJ5	Establishment of the Biogas market	Market	DoE			10,000		10,000	formulation of a Biog Implementation Framework, Polici that should govern t implementation of t Biogas Programme
FJ6	Holistic training provided for Energy staff, rural communities, village technicians and relevant stakeholders of the Renewable Energy sector	Market	DoE	5,000	5,000	5,000	5,000	20,000	This involves the training of the rural communities in terms project management, maintenance of renewable based projects
FJ7	PIGGAREP National Coordinator (salary and other benefits); Project Post for Energy Statistics	Institutional	DoE	10,000	10,000	10,000	10,000	40,000	This involves the training of the Energy staff in areas that are relevant to the development of the Energy Sector such as economics, accounting policy, management, etc. Such short course are offered by USP, TPAF, PSC and international institutio
FJ8	Review / adopt / enact relevant policies, frameworks, legislations for RET; Enactment of Fiji's Energy Bill	Policy	DoE	2,500	2,500	2,500	2,500 23.000	10,000 92,000	This is to fund the review of existing policies and frameworks for the development of renewable energy technologies and the formulation of the Renewable Energy Research, Developme Policies and Acts

**General Progress:** The general progress with the 2008 Work Plan has been rather slow at the beginning of the quarter but has picked up some momentum by the end of the quarter.

**Govt of Fiji Rural Electrification Programme** DOE's 2008 Business Plan has over forty activities. Of the 40 activities, 15 are renewable energy activities with a total budget of FJD2 million. These are the co-financing activities in Fiji and include the following:

i) Renewable Energy Database

				Year 1	Quarters				
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
ii)	Renew	able Energy St	atistics						
iii)	Capaci	ty Building							
iv)	Solar H	Iome Systems	(SHS) Programme	e					
v)	Somos	omo Hydro Pr	oject						
vi)	Nabou	walu Hybrid (	Wind/Solar) Proje	et					
vii)	Biogas	Programme							
viii)	Wind I	Programme (Su	rvey & Long tern	n monitor	ring)				
ix)	Hydro	Programme (S	urvey & Long ter	n monite	ring)				
x)	Wave	Programme (S	urvey & Long terr	n monito	ring)				
xi)	Solar I	nsolation Prog	ramme (Survey &	Long ter	m monit	toring)			
xii)	Renew	able Energy St	andards						
xiii)	Compi	lation of Hydro	o Potential Report	(based o	n 500 sit	es alrea	dy be	ing surveye	ed)
xiv)	Hydro	Detailed Desig	gning (2 projects p	er year)				-	
xv	RED I	nfrastructure F	ramework (Standa	rd Opera	ting Pro	cedures	)		

### PICP

Fiji has signed the cooperation's communiqué and submitted proposals, including 10 biogas digesters. Activities which have been proposed to the Italian government include i) Enactment of Fiji's Energy Bill & review/adoption and re-enactment of relevant policies, frameworks and legislations for RETs, ii) Detailed designing for hydro projects in the Bua (Navakasali/Naruwai), Cakaudrove areas and iii) Detailed designing and construction of hybrid (wind/diesel) project on Gau Island (Vadravadra) - to include maintenance, management, etc.

### PIGGAREP

Fiji has prepared 2 PAS for a renewable energy Data Entry Clerk (DEC) and Support the Renewable Energy Sector (Hydro, Biogas) in Fiji.

The Fiji Department of Energy (DoE) has advertised for the DEC and has received about 200 applications. Short-listing for interview is currently underway. A draft contract between SPREP and the successful candidate has been prepared and forwarded to the DoE. DoE has also been requested to review the PAS to clarify the link between the baseline and incremental activities, as suggested by UNDP-GEF. Similar request has been made of the PAS for the *Support the Renewable Energy Sector (Hydro, Biogas) in Fiji.* 

KI3	Technical visits to biofuel	Technical Awareness	KCMC, PUB, EPU		10,000			10,000	
	developments	2 Twareness	LIU						
	either in Vanuatu								
	and Majuro or								
	Philippines								
KI4	Technical visits to	Technical	EPU, SEC &	10,000				10,000	Will cover participation
	PV-Grid	Awareness	PUB					,	at the SIS Capacity
	developments in								Building Workshop in 2
	Tuvalu.								QTR.
KI5	Consultations on	Policy	EPU, MELAD,				7,000	7,000	
	the National		MISA						
	Energy Policy and								
	drafting of an								
	Action Plan								
KI10	Refresher	Technical	SEC			10,000		10,000	
	technical training								
	following the EDF								
	8 OI								
	electrification								
	project.								
K12	Feasibility study		SEC, EPU, PUB			9,000	9,000	18,000	
	on PV-grid pilot								
	project at SEC								
	Headquarter.		and a			17.000		1= 000	
KI5	Training		SEC			17,000		17,000	
	component related								
	to the installation								
	of the new								

				Yea	r 1 Quar	ters			
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
	RESCO Manager								
KI16	Migrating RESCO Manager to an open source platform.		SEC		6,000	6,000	7,000	19,000	
KI22	Public awareness campaigns	Awareness	EPU, MELAD & media		500		500		Awareness raising activities linking RE projects to mitigating potential to climate change, and their benefits to environment and economy
	Sub-total Kiribati			10,000	16,500	42,000	23,500	92,000	

General Progress: The general progress with Kiribati's work plan has been rather slow but still satisfactory.

#### PICP

Kiribati has signed the communiqué but has not submitted its proposals.

#### EU EDF 10

The Financing Agreement was signed in 2007 and a consultant has visited Kiribati on a project identification study.

#### Solar Energy Company

Activities of the Solar Energy Company are part of the co-financing. A contract was signed with Software Factory Limited of Fiji . This contract will include:

- 1. Correction of minor problems and bugs still existing in RESCO Manager II
- 2. Programming the logistics module.
- 3. Programming the first version of RESCO Remote.

#### UNDP

The UNDP Multi Country Office in Suva is at the final stages of approving a Maintaining Renewable Energy Systems in Kiribati through Technical Training Project for USD 35,000.

#### PIGGAREP

SEC participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

The Solar Energy Company (SEC) has developed a PAS to strengthen the effectiveness of the management of the SEC through supporting the development of software known as the RESCO Manager. The co-financing activity was to be an UNDP-funded training of trainers. The SEC has requested UNDP to integrate the training of trainers with the RESCO Manager. UNDP has then requested SEC to revised the Project Document and that this new ProDoc would have to go through its project approval process. Once this new ProDoc is approved, SEC will then revise its PAS.

NA2	Information dissemination	Awareness				2,500	2,500	5,000	
NA3	Awareness raising and public education	Awareness				2,500	2,500	5,000	
NA4	Create an 'Energy and Environment' curriculum for the schools		Energy Efficiency Officer (Utilities) and schools	10,000	10,000	10,000	10,000		Will cover participation at the SIS Capacity Building Workshop in 2 QTR.
	Sub-total Nauru			10,000	10,000	15,000	15,000	50,000	

General Progress: The general progress with Nauru's co-financing and PIGGAREP activities have been satisfactory

#### REP-5

- An Energy Officer was recruited in Nov 2007 to implement the actions from REP-5's EE Action Plan for Nauru. Total costs: 40,000
  Euro. The position is to be funded until 31st Dec 2009. SOPAC provided a training attachment to the EO during the 2 QTR of 2008.
- A tariff review is to be carried out following the results of a report funded by the ADB. The results will feed into the implementation of prepayments meters and for general energy planning and renewable energy purposes. Total costs: 60,000 Euro. Review to start in Q3 2008.

• A consultant will visit Nauru during the 2 QTR to look at the awareness activities under REP-5. Since it is most likely that REP-5 will

				Year 1	Quarters				
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
now 1. • A 40 moni	been advanced to be kWp grid connecte	egin in 2008. Tl d PV system is <sup>7</sup> Efficiency Off	he PAS was drafted to be installed at N	d during the P. Jauru College.	M mission i The PV sys	n early Fe stem is to	bruai be m	ry. PAS will	ver feasibility study has be submitted to the PSC the Utility, and ded by end of April,
	signed the commu These were for imp	1				1 0		1	als were developed and ters for schools.
<b>EDF 10</b> Nauru has 2008.	signed the Financi	ng Agreement f	for the EDF 10. The	he consultant	doing the p	roject ide	ntific	ation study v	isited Nauru in February
Taiwan									

Taiwan will provide 60 stand alone solar systems to Nauru. These are expected to be installed at the community leaders' houses.

#### PIGGAREP

The Nauru Utility Authority participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

The wind power feasibility study has now been advanced to begin in 2008. The PAS was drafted during the PM mission in early February. The PSC 1 endorsed PAS. The request for proposals for the *Nauru Wind Power Feasibility Study* was launched. The evaluation of the proposals was completed and the contract is ready to be signed pending confirmation of the commitments of the Nauru government to the project. A draft cabinet paper was prepared which the national project coordinator is using to first prepare a brief for the minister whereby the minister will then give direction for the subsequent briefing of the Cabinet.

NI4	Capacity Building, NPC/Private	Awareness	NPC	1,000	2,000	1,000	1,000	,	Will cover participation at the SIS Capacity Building Workshop in 2
NI6	Sector/ Energy Coordinator / AFO	Institutional	NEAP	3,750	3,750	3,750	3,750	15,000	QTR. NPC
NI7	Develop renewable energy plans and targets for 2010, 2020 and 2050	Policy	NEAP	1,500	1,500	1,500	1,500	6,000	GON NZAID AusAID
NI8	Develop/Review fiscal policies to facilitate the achievement of the RE targets / Expansion	Policy	NEAP			3,000	3,000	6,000	NPC/GON
	Sub-total Niue			6,250	7,250	9,250	9,250	32,000	

General Progress: The general progress with the co-financing has been satisfactory while the PIGGAREP activities have been slow.

#### REP-5

• Supply of solar water heaters

240 SWHs are currently being installed by local contractors under this programme. To be eligible for the discount, residents must hand in their existing electric water heaters. Total costs: 600,000 Euro.

### Grid-connected PV system

A grid connected PV system is to be installed on a public building. Capacity of the system is to be 35 - 55 kWp. Total costs: 400,000 Euro. Forecast published, contract to be signed by end of May, installation to be completed by January 2009.

#### Awareness Raising

Awareness raising to be carried out in conjunction with the SWH project. Total costs: To be confirmed. Activities has begun and will continue throughout 2008 and 2009.

#### EDF 10 Renewable Energy Programme

The financing agreement was signed in October 2007. The consultant doing the design study visited Niue during the QTR 1.

		Yea	r 1 Quar	ters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments

#### PICP

Niue has signed the Communiqué but and has identified one Mr George Lakatani to be responsible for drafting Niue's proposals. PIGGAREP provided Tuvalu and Vanuatu's proposals as a reference.

**PIGGAREP** Niue Power Corporation participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

Project Manager to visit Niue in early 3 QTR 08 and for a PAS to be drafted.

PN1	Manager to visit Niue in early Buakap Aidpost	ATCDI at PNG	ununted.	4,452		4 452	Have vaccine fridge to
<b>FNI</b>	Solar PV System	University of Technology		4,452		4,432	treat emergencies, etc
PN2	Investigating The Possibility Of Using Coconut Oil As A Substitute Fuel For Diesel Engines	Department of Mechanical Engineering at PNG University of Technology	6,148			6,148	Identify effect on diesel engines and make improvements. Cheap fuel for engines. Growers will have a market to sell their crop & generate additional income.
PN3	Rehabilitation of the Bogo School Micro Hydro Power Scheme	ATCDI at PNG University of Technology	2,673			2,673	Continue to provide electricity for the Health Centre to continue with provision of improved medical services.
PN4	Solar Photovoltaic Project for the Baiteta Village Aidpost In the Madang LLG, Madang Province	ATCDI at PNG University of Technology	2,774	2,000		4,774	Have vaccine fridge to treat emergencies, reduce long distance travel & decrease health problems.
PN5	Clinical Waster Gasifier Project for Asaro Health Centre in the Eastern Highlands Province	ATCDI at PNG University of Technology	1,292			1,292	Completely burn hospital wastes and minimize environmental pollution
PN6	Renewable Energy Training in the four regions of PNG for Development workers (1. Kokopo - New Guinea Islands, 2. Lae - Momase, 3. Goroka - Highlands and 4. Port Moresby - Southern)	ATCDI at PNG University of Technology			3,000	3,000	Development workers can have basic knowledge to assess projects like micro hydro & solar power
PN7	Exposure visit / training attachments visit to (1) CASE in Perth WA, Australia, (2) RPC in Nimbin, Qld, Australia	ATCDI at PNG University of Technology			5,000	5,000	Improved performance by staff with improved design of projects & local trainees to benefit greatly.
PN11	PIGGAREP - PNGSEL - Bismark Energy Ltd and New	PNGSEL			70,000	70,000	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.

		Yea	r 1 Quar	ters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
	Guinea Gold Collaboration on Geothermal Energy								
	Sub-total PNG			12,887	-	6,452	78,000	97,339	

General Progress: The general progress with the PIGGAREP activities has been satisfactory. The general progress with the co-financing has been rather slow.

#### Government of Italy and PIC Cooperation Programme

The communiqués has been signed and 8 proposals has been drafted and submitted. The PNG University of Technologies is taking the lead in developing proposals to be funded by the Italian government. They include the following:

- 1. Baiteta solar PV project (Madang Province)
- ATCDI has got  $\hat{K}6,000.00$  (US\$1, 968). ATCDI will submit a proposal to the Italian to cover the Solar modules, batteries, regulator, cables, light fittings, cables, battery enclosure, module
- The Biodiesel project (Unitech, Lae)
   ATCDI will submit a proposal to the Italian to cover a Personalized Biodiesel Production System, Diesel Engine for Testing Fuel,
   Dynameter plus accessories, Exhaust Gas Analyzer, Engine Performance Analyzer, Wear Particle Analyzer (Model 56), Oxygen
   Bomb Calorimeter and an expendable supplies & services (including coconut oil).
- The Bogo MHP project rehabilitation (Simbu) ATCDI spent US\$6500 to install in 1993. For this project ATCDI will submit a project proposal to the Italian to cover the following Turbine/generator, uPVC pipes and fitting, cement, timber, angle iron and steel bars.
- Buakap solar PV project (Huon, Morobe) This is a new project. A new Aidpost building has been built funded by the Rotary Club. For this project ATCDI will submit a project proposal to the Italian to cover solar modules, batteries, regulator, cables, light fittings, battery enclosure and module security frame.
   The gasifier project (Asaro, EHP)
- The gasifier itself was funded by GEF/SGP with a grant of US\$3929. The gasifier will be transported to site and installed. For this project ATCDI will submit project proposals for co-financing from the Italian.
- 6. Solar PV and micro hydropower training The training will be conducted in the four regions. For this project ATCDI will submit a proposal to the Italian to cover the local transport, resource materials, copying & printing of lecture materials, refreshments, Certificates and contingencies.
- ATCDI staff development This is a project to develop capacity of ATCDI staff by visiting/attachment to two RE organisations abroad for 2 weeks. Organisations selected are CASE in Perth and Rainbow Power Company (RPC) in Nimbin NSW. For the staff development training ATCDI will submit project proposals for support by the Italian.
- 8. Bago solar PV project (Pomio, ENB).
- This is a new project located in the New Guinea Islands region. For this project ATCDI will submit a project proposal to the Italian to cover Solar modules, batteries, regulator, cables, light fittings, Cables, battery enclosure, module security frame.

The Italians have not come back after PNG's last contact with them in February 2008. Reminder s were sent and there's hope to hear from them soon. There is disappointment in having to wait for many months.

#### Sustainable Energy Ltd

1. PNGSEL is keen to develop rural power supply using straight coconut oil/biodiesel to provide power supply to remote rural communities, where the cost of petroleum diesel is very high. PNGSEL has an initial budget of K1.7 million to start the production of biodiesel and coconut oil for local generation of power supply to remote villages (Pomio Coconut and Biodiesel Rural Electrification Project). Coconuts in these rural areas have been left unattended because of the high cost of transport and a market available locally will promote coconut tree rehabilitation and grow local economies as well as improve education and health programs through the availability of power supply. Their model will include the availability of Micro Finance Banking and communications, including an internet cafe.

PNGSEL is also implementing a trail bio-diesel project at Aroma. Aroma project will trial the use of small scale biofuel production to provide power to 480 people (80 households). Under this model being tested PNG SEL provides a local coconut plantation owner with oil extraction machinery and arranges a purchase agreement of buy straight coconut oil (SCO) at a set price. SCO will be used to power the adjacent villages. Small scale biodiesel production for local vehicles will also being trailed. Total load is estimated at 144,000kWh, requiring around 50kVA installed capacity. A 13.5kVA genset has also been provided for the plantation.

As this is a trial of a model for small-scale sustainable electrification it would be useful if it could be co-funded as a feasibility study.

A PIGGAREP support in training and exposure of PNGSEL staff in the production of coconut oil and biodiesel for the generation of rural power supply would add value to their rural electrification programs as they will be looking to roll out these programs throughout the country, wherever there is an abundant supply of coconuts.

A sub-section of the above would be the exposure to the technical aspects of processing equipment and the associated advantages and disadvantages of the different types available on the market. Such an exercise would assist greatly in PNGSEL's sourcing of the right equipment and processors from the very beginning instead of half way through the exercise when funding can be a real issue.

						ters			
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments

2. The other area of interest is in Photovoltaic. PNGSEL have identified areas where Solar Powered Stations would be the most beneficial option for some rural village settings. The budget for the current project for one of the villages in the Western Province (Mabudawan Solar Power Station Project) is about K7 million Kina for a 300kW solar power station. This exercise is a first for PNGSEL's engineers and some exposure/training on the design and construction aspects of solar power stations between 10 kW to 300 kW would definitely add value to these projects. Again, PNGSEL will be looking to construct a number of these projects throughout the country and the high initial capital costs involved does not leave any room for mistakes (as mistakes can result in the project being abandoned and a lot of money wasted).

3. An agreement has been signed between PNG Sustainable Energy Limited, Bismarck Energy and New Guinea Gold for feasibility studies to be carried out on the potential of a geothermal power station at the Sinivit gold mine in East New Britain. The plan is for Bismarck Energy to construct the geothermal power plant and sell electricity to New Guinea Gold the developer of the Sinivit Gold mine.

4. Cooperation Agreement between PNG Sustainable Energy Limited (PNG SEL) and New Guinea Ireland Provincial Government (NIPG) is been prepared for signing by January 2008 to pave way for the parties to investigate the rehabilitation of Sohun Micro Hydropower Station and the development of potential hydro and biodiesel resources in New Ireland Province. The investigations would identify, quantify and consolidate the rehabilitation requirements together with other resources and provide options for harnessing and development. Sohun has 231kW generation capacity but current output is only 60-80 kW due to mechanical and low-flow problems. According to previous studies, it is anticipated that a total generation reserve of over 1MW would be developed to support power supply to Namatanai District Headquarter and communities along the peripherals of power generation and transmission routes.

PIGGAREP assistance is required in the completion of the rehabilitation study.

5. PNGSEL is also interested in investigating the potential for wind power generation in Hula Peninsula. This would aim to cater for the population on the Hula Peninsula, around 11,970 people (1,855 households). Load is estimated at 820kW or 3.5GWh/a. Following a detailed evaluation the aim would be to install around 900kW of wind power and a similar capacity of diesel in a hybrid setup. Hula is expected to be an area of good wind potential based on ground observations and some measurements nearby. Another possibility would be to use larger turbines and interconnect with a nearby 22kV PNG Power line.

Assistance is required from PIGGAREP to carry out feasibility study and train local engineers to plan and design wind farms.

6. Ormand is a storage hydro in the Eastern side of Central Province. Total installed capacity has been estimated at 5MW for an annual output of 33.8 GWh/a. It has been suggested that it is expandable to 8MW with annual output increasing to 63 GWh/a. The population within range of medium voltage distribution lines is around 39,053 people (6,083 households). This hydro could also be connected to an existing PNG Power 22kV line nearby.

Assistance could be co-funding of a feasibility study.

7. Kimadan is a 3 stage run of river hydro in the middle of New Ireland Province. Total installed capacity has been estimated at 5.1MW for an annual output of 29.6 GWh/a. The population within range of medium voltage distribution lines is around 30,980 people (6,024 households), while there are some commercial loads including a large Palm Oil plant. The connection of Kavieng town would require around 160km of high voltage lines.

Assistance could be co-funding of a feasibility study.

#### PIGGAREP

PNG SEL participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

The PNG Sustainable Energy Limited (PNSEL) developed two PAS. One was on a Geothermal Pre-feasibility Study at Sinivit and the other was for a Feasibility Study of a mini PV grid at Mabuduwan.

After launching the call for proposals for the Sinivit study, PNGSEL has advised in May that after consideration of the issues around developing this project for investment, it believed it is better for this early activity to be carried out by PNGSEL itself. Under these circumstances it wished to withdraw this activity from PIGGAREP but still wish to keep the option of obtaining PIGGAREP funding for a later activity on the Sinivit Project.

The call for proposals for the feasibility study of a mini PV grid at Mabuduwan was completed and evaluated. The PAS for this activity has not clarified the link between the baseline and incremental activities, as suggested by UNDP-GEF, in particular, a commitment to invest on the project if the study proves feasible. PNGSEL advised that the Board of the PNG Sustainable Development Programme will decide on this in its meeting in early July.

SA1	2.3.1 (3.1.3) -	Technical	Energy Division,	1,000		1,000	
	Capacity Building		energy				
	training needs on		stakeholders,				

				Yea	r 1 Quart	ters				
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments	
SA2	RETs (ADB) 2.3.2 (3.1.4) - Training programme on RETs (ADB)	Technical	EPC, Private sector, MWCSD, SWA, Energy Division, PSC, Energy Stakeholders, SWA, MWCSD,		1,000			1,000		
SA4	2.4.1 Coordinate the development of an RE programme with	Technical	MNREM, RDIS RDIS, Energy Division, MNREM, EPC, MAF, SWA	1,000				1,000		
SA5	the RDIS 2.2.4 Establish the Designated National Authority (DNA) for CDM activities	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants		2,500			2,500		
SA6	2.2.5 Build capacity in CDM process and implementation	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants			5,000		5,000		
SA7	2.2.7 Establish a Clean Energy Fund	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants		2,500			2,500		
SA8	2.2.8 Build capacity in Clean Energy Fund operational processes	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants			5,000		5,000		
SA9	3.6.1 Consultancy to identify relevant DSM activities	Technical	EPC, Energy Division, MNREM, NUS, consultants				1,000	1,000		
SA10	3.6.2 Develop DSM strategies	Technical	EPC, Energy Division, NEC				1,000	1,000		
SA11	Hydro data collection programme	Technical	EPC, MNREM, Energy Division, Energy Stakeholders	30,000				30,000	EPC	
SA13	Assess the practicality of RESCOs in maintaining RE- based energy facilities	Market	Energy Division, EPC, energy stakeholders, private sector, MNREM				10,000	10,000		
SA14	RE and related products Development & promotion annual programme	Market	SAME, Energy stakeholders, private sector, MNREM			10,000		10,000		
SA15	2.4.3 (2.1.2, 5.3.1, 4.3.1) – Conduct of prefeasibility studies on identified projects for 1 potential	Finance	Energy Division, RDIS, MNREM, MAF, MWCSD, NUS, EPC, SWA, consultants			5,050		5,050		

			Yea	r 1 Quar	ters				
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
	source identified in 2.1.1								
SA16	2.4.4 (2.1.3) Conduct of full feasibility study on identified projects in 2.1.1	Finance	Energy Division, RDIS, MNREM, MAF, MWCSD, NUS, EPC, SWA, consultants				7,100	7,100	
SA17	1.4.1 (3.4.2) Development of an Energy demand and supply database - collection of RE data.	Finance	Energy Division, Statistics, energy stakeholders, EPC, MNREM, MWTI, MOR, Gas companies, Oil companies	825				825	
SA18	2.4.2 Develop funding proposals for 2.4.1	Finance	RDIS, Energy division, MNREM, MAF, MWCSD, NUS, EPC, SWA, consultants		1,000	1,025		2,025	
SA19	1.2.2 (2.1.4) Develop an Energy Bill - RE component	Policy & Regulation	Energy Division, energy stakeholders, MNREM, AG, consultants	1,500				1,500	
SA20	Development of standards required to meet GHG emission reduction requirements and use of RE for local manufacture and export productions - trainings dissemination	Policy & Regulation	SAME, private sector, energy stakeholders, MNREM, EPC, MWTI, MWCSD			1,000	1,000	2,000	
SA21	2.2.1 (4.1.4, 4.2.3, 4.4.1, 5.2.1, 5.3.1)National energy awareness campaign day	Info & Awareness	Energy Division, energy stakeholders, MNREM, MAF, MWTI, MESC, RDIS, NUS, EPC, SSC, SAA, STA, Oil companies, gas companies, SUNGO, SAME, COC MEDIA		10,000			10,000	
	1		COC, MEDIA						

General Progress: The general progress with the PIGGAREP activities has been slow. The general progress with the co-financing has been slow too.

#### The ADB Power Sector Expansion Project

The project involves a TA - Preparing the Power Sector Expansion Program - that will (i) develop a comprehensive reform program, including a regulatory framework, that would enable private sector participation and enhance the efficiency in the sector; (ii) develop a program to reform the Electric Power Corporation's (EPC) internal business and management procedures to enhance governance and cost efficiency; and (iii) prepare an investment road map to diversify the country's energy resources, meet future load growth, and reduce the burden of diesel imports.

This TA will then lead to 2 very important initiatives:

The Power Sector Expansion Project will comprise of (i) three investment components under the Electric Power Corporation's (EPC) investment plan, (ii) assistance to project management, and (iii) technical assistance (TA) programs to (a) improve EPC's financial

				Year 1 (	Juarters			
Project Code	Activity	Outcome	Lead / Collaborating	1	2	3 4	4 Year 1 Total	Comments
Code performan- nergy fur- which will EPC's und- ind install ubproject- nacroecor- eeing prov- A TA to in <u>Componen-</u> Componen- tew electru- unctions. <u>Componen-</u> Componen- levelopme- <u>Componen-</u> levelopme- <u>Componen-</u> the finana- siriff struc- lemand-si- <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen- <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen-</u> <u>Componen- <u>Componen-</u> <u>Componen- <u>C</u></u></u></u>	ce; (b) establish d. The investm be implemente erground cablif ation of pre-pay s identified und nomic impact of vided in conjunc nplement Samo ti 1- Regulatory it 1 will suppor a at affordable p icity act to gove the 2 - Establish at 2 will contrib ent. The CEF w e change adapts the 3 - Establish at 3 - Establish at 3 - Establish at 3 - Establish at 3 - Establish ancial manage of tariff adjust ture and introdu de managemen er TA includes i the 1- Regulatory ives of Compo- itor participatio at 2 - Establish at 2 - Establish at 1 - Regulatory ives of Compo- tor participatio	n effective regulat ent components in ad from 2008 to 2( ag program for the yment meters for a ler EPC's investme f the large financin ction with this gra ba's National Energy <u>/ Reform in the Pc</u> t the Government' orices. Component ern the sector and <u>ment of a Clean En</u> rute to the Govern ill promote and fa ation. <u>ment of a Designan</u> ute to the Govern Financial Managen he power sector ar ment controls, acc ments, EPC will co uce bulk power put ts.	Collaborating Agencies	5 candidate in nprises the He to provide pr Component 1 ADF IX grau e power secto I consist of a: the power secto he regulatory PC Act (1980) ce the quality f clean energy ce the quality ectric Power ng electricity of As part of El year financial th large consu	vestment su ospital feed otection fro C comprise at of \$18.1 r expansion etor to prov requirement , and establ of life for a corporation lemand pla PC's forwar projection mers to pro-	ed national lbprojects, a er upgradin, om cyclones s five gener million to th project. A l ide sustaina atts for the po ishment of a dl Samoans ces for clear dl Samoans <u>n</u> ces substant d looking ir s. There is a wide incenti , and a concestitutional ca	Total authority; and ( ind a project ma g project-Stage . Component B ation and elever he Government loan in the amou ble and reliable ower sector, inc a regulatory boo through sustain h energy, enviro through sustain ial requirement ives for energy of ducive environn apacity and tech	d) establish a clean nagement component 1 which forms part of comprises the supply a transmission candidate will ease the unt of \$23.9 million is electricity services to a luding the drafting of a dy and its roles and table energy nmental improvement, aable energy s on EPC to improve and need to improve o improve the existing conservation and neent for cost-effective nical capability of a
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	-		ich will be delivered t ng on reducing GHG o	•			uva. A USD 60	0,000 proposal has been
UCN has ind Vanua		oject manager for	the programme. IUCN	I will manage	the project	s activities i	n Palau, RMI, S	Samoa Tonga, Tuvalu
The PIEPS Draft polic National E GIS/MIS (	SAP Project (20 cy statements an Energy Policy en consultancy for	nd strategies produ ndorsed by Samoa power utility ince	rgy Projects sted Samoa with the fo iced in September 200 Cabinet in June 2007 pted in December 200 tory Phase for the Sam	5 including ro	enewable en	fully operati	ional by 2nd qua	arter 2007

Since the PIEPSAP will continue to operate for just another year (up to mid August 2008), discussions of the collaborations between PIEPSAP and PIGGAREP has resulted in the suggestion of some activities to be picked up by PIGGAREP.

				Year	1 Quar	ters			
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments

PIGGAREP's follow-up support to the PIEPSAP's activities will focus on the following activities:

o 1.Co-operation in developing strategic energy action plan

 2. Follow-up in cooperation with UNDP on the Preparatory Phase for the Samoa PV Rural Electrification Programme including support for the implementation of such PV program

 3. Support for EPC wind energy development including comprehensive feasibility studies (including geotechnical analysis) and identification of funding sources, possibly CDM

Furthermore, UNDP, SOPAC, RISOE, EPC and the government of Samoa is working on the Upolu wind resource assessment project (US\$32,000). The project will select, install, and operate two (2) wind monitoring stations and after 1-2 years with successful minimum data recovery rates analyze the data and assess the wind resource potential on Upolu. The expected main outcome of the Project is to assess the wind resources in Upolu, Samoa.

The Government of Samoa through the Electric Power Corporation (EPC) and in cooperation with UNDP and the Danish NGO the Organisation for Sustainable Development have replaced the current diesel generator with photovoltaic (PV) based power systems on Apolima Island. The expected overall outcome is to improve livelihoods through a reliable, effective and environmentally friendly 24-hours power supply for the nine (9) households and one (1) church on Apolima Island including PV based streetlights.

In relation to the above, UNDP Samoa, PIEPSAP and SOPAC have undertaken a preparatory phase for the Samoa Photovoltaic (PV) Electrification Programme. The preparatory phase (US\$47,000) will undertake a household survey of un-electrified households in Samoa; determine the resources available and the technical, economical, financial, and institutional feasibility of carrying out a Samoa Rural Electrification Program based on PV; and prepare a Program Document (i.e. investment plan) for a Samoa PV Rural Electrification Program. The expected outcome of the preparatory phase is a properly formulated and detailed PV based rural electrification program to provide the remaining up to 1,200 non-electrified households in Samoa with 24-hours power.

Samoa, UNDP and SOPAC have been working on a CocoGen project, looking at the feasibility of using copra oil for power generation. Following discussions between EPC Management, UNDP and SOPAC representatives on 19 July 2007 the Work Plan and Budget for the EPC CocoGen Phase II has been revised to accommodate suggestions and concerns of the EPC Board. The revised Work Plan and Budget acknowledges that given revised maximum blend mixtures of 5% CNO on the one hand and increased supply cost for diesel may change the economics of the project significantly. Revised scheduling also considers the critical nature of the supply chain. In addition an analysis of various options for institutional arrangements for CNO production now takes precedence over technical design issues. The work plan is based on the assumption that EPC's preferred supplier of new generation equipment for Savaii power station will allow a 5% CNO addition to the diesel fuel without negative consequences for warrantees or operational characteristics of the diesel engines.

#### PIGGAREP

There was a move to urgently implement SA-11: Hydro power resources assessment. This project will now come under the jurisdiction of the new Project Management Unit (part of the ADB Power Sector Expansion Project) which means a need to integrate the planning and budgeting under different requirements. This will involve a further delay in preparing the PAS.

April 25<sup>th</sup> 2008 was dedicated as the Samoa National Energy Awareness Day (SNEAD) with activities targeting mostly school children. The theme for this event was "*Energy for Life, Use it Wisely*". The events during the SNEAD involved speech, poster and renewable energy model competitions among the primary and secondary schools. About 400 students participated in this event plus members of the general public who were mostly part-time participants throughout the event. The report on this event and its evaluation by the PIGGAREP PMO can be viewed at the PIGGAREP web page http://www.sprep.org/climate\_change/piggarep.htm

SI3	Economic feasibility study of production/use of coconut oil /bio- fuel as fossil fuel substitute in power generation in rural areas.			4,000	4,000		,	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.
SI5	Feasibility study for mini hydropower plants on Rori (Malaita) under Rural Electrification Framework	Economically viability established	SIEA, MME, SOPAC	2,500	2,500	2,500	)	To kick-start the Rori Mini-hydro scheme

Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
SI6	RE Electricity Pricing Study	RE Pricing Template formulated	MME, SIEA, SOPAC	2,500	2,500	2,500		7,500	High priority. To produce a standardized rural electrification tariff calculation guidelines, and tariff calculation templates that provide pro-forma methods of calculating tariffs using costs based on generation technology, location and other factors, as
S18	RE surveys and assessments for hydro, wind and solar	Survey Reports	MME,SIEA,SOP AC			2,000	2,000	4,000	There are potential sources and sites on the 7 main islands of the Solomon Is for hydro and almost all populated rural communities on the coastal areas of the islands for solar
SI11	Support to investment Development Projects	Financial & Technical	SIG, MME, SIEA, Private Sector	2,000	2,000	2,000	1,000	7,000	
SI12	RE Conservation and Efficiency Programmes	Conservation and efficiency measures in place	MME, SIEA, SIG, SOPAC	300	500	500	200	1,500	
SI14	Setup of RE Unit	TA, Unit in place	SIG, SIEA, (REEEP?)	2,000	2,000	2,000	2,000	8,000	
SI16	Energy Supply/Demand Studies	Study Report	MME, SIEA, (SOPAC?)	300	1,000	1,000	200	2,500	
SI17	Economic feasibility study of production/use of coconut oil /bio- fuel as fossil fuel substitute in power generation in outer islands SIEA power stations.		MME, SIEA, Private or SOPAC		1,000	2,000	2,000	5,000	
SI18	Feasibility study of solar Grid interactive system for National Referral, Lata, Kira Kira, Auki, Malu'u.Gizo.	Study Report presented for proper action	MME, SIEA, Private		2,000	2,000	1,000	5,000	

				Yea	r 1 Quar	ters				
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments	
	Tulagi and Helena Goldie Hospitals		- Europe							
SI20	Micro Biofuel Enterprise Development	Micro Biofuel development structure	Frelin Enterprise & Fred Conning		2,000	2,000	2,415	6,415		
SI21	Rural Communities Solar PV lightings/water pumping projects feasibility studies and funding	Hardware and then Access to Electricity	MME, SITAFE, Private Solar PV Companies			2,000	2,000	4,000		
SI22	Solar system grid connect at SITAFE	Demonstratio n	Choice Electrics, Australia, SITAFE		2,500	2,500	2,500	7,500		
8124	Technical Support to the SITAFE Renewable energy library centre	Technical/res ources materials	Australia (OTEN -NSW TAFE)		2,000			2,000		
S126	Micro hydropower pre- feasibility study at various sites at Atoifi Hosp., Kounabusu (Kwaio), Manawai (upgrade), Masupa'a, River Side and Rara village, all in Malaita	Power base for rural market outlet / industries	PELENA (Renewable Company)		2,000	2,000	1,000	5,000		
SI27	Biofuel Study & Development	Complement Frelin Enterprise & Fred Conning	Pro Solution, (SOPAC?)		1,000	1,000	1,000	3,000		
	Sub-total Solomon Is			13,600	27,000	26,000	17,315	83,915		

General Progress: The general progress has been slow.

### PICP

The communiqué has been signed. Proposals were developed and submitted. The proposals to the Italian government are for the electrification of schools and clinics/area health centres located in the rural areas that have no connection to the national grid right throughout Solomon Islands.

**Energy Division's Renewable Energy Activities** There was a recent change of government and the budget has not been passed by parliament.

	Year 1 Quarters								
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments

SIVEC's RE Development Activities

### PIGGAREP

SIEA and Willie's Electrical participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

A draft PAS was received to study the feasibility of a Micro Biofuel Enterprise in the Solomon Is. This PAS was reviewed and assessed and sent back to the Solomon Is. The project proponents have not updated it. The major concern, as is common with some other PAS, is the placement of the incremental activity at the front to be followed by the co-financing activity. This does not follow the incremental / value added logic because if the outcome of the incremental activity is not feasible then the co-financing activity will not take place, resulting in a waste of GEF resources.

The Solomon Is Electricity Authority (SIEA) submitted a draft ToR for a study to establish a template for RE pricing. It was raised with SIEA the importance of ensuring that this study will not be a repetition of what has already been covered in the 2007 PIEPSAP base tariff review and to create the linkage between the two studies. It was also suggested to SIEA that the objective of "designing a template" be extended to cover three areas suggested in the PIEPSAP study:

- Least cost generation plan to reduce diesel dependence
- □ SIEA's technical criteria for the power it will purchase
- Pricing template or pricing framework or the avoided costs

### There has not been any further communications from SIEA on this study.

TO1	Joint annual	Institutional	EPU, HSES &	6.000				6 000	The joint annual
101	committee	Institutional	NFSES	0,000				0,000	meetings should then
			INFSES						lead to the
	meetings								establishment of the
									National Steering
-	<b>m</b> 1 1 1			2 0 0 0					Committee
TO2	Technical	Technical	EPU, HSES &	3,000				3,000	Ha'apai's, installed in
	evaluation of the		NFSES						2002, is to be evaluated
	solar installations								next year while Niua's,
									installed in 2006, will
									be in Year 2 and both
									on Year 5.
TO3	Training of village	Awareness	EPU			6,000		6,000	Training is to be part of
	water committees								the JICA solar water
	and island								pumping project for
	technicians								Niuatoputapu. Also
									include training for
									NFF and Ha'apai
									technicians based on the
									outcome of the
									evaluations.
TO09	Training on RE	Awareness	EPU & AMREC		5,000			15,000	To cover solar, wind
	for AMREC								and bio-fuel. To begin
									early in the project
									thereby allowing
									AMREC members to
									bid for activities in the
									Italian and EDF 10
									projects.
TO11	Energy	Policy	EPU & Crown				20,000	20,000	A follow-up to the RE
	Legislation		Law &						Bill. To review existing
	Review		Consultant						energy-related
									legislations and whether
									they can all be merged
									into an Energy Bill.
TO12	Wind resources	Technical	EPU	2,500	2,500	2,500	2,500	10,000	To sites will be selected
	assessments							-	based on the Vergnet
									wind atlas project
									which will be
									completed by Sept 07.

				Yea	r 1 Quart	ters			
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
TO14	Biofuel feasibility study	Market	EPU & Waste Mgmt Ltd	10,000	10,000			20,000	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.
TO15	Demonstration of the viability of copra oil for remote islands electrification	Technical Financial	<b>EPU</b> and Island Community				5,000	5,000	To begin after the exposure visit to Vanuatu and other PICs.
TO17	RE Awareness Programme	Awareness	EPU	1,500	1,500	1,500	1,500		To include production of a RE documentary, establishment of an RE information centre at the EPU and the District Solar Energy Societies, a monthly radio programme and an annual RE award programme.
	Sub-total Tonga			23,000	29,000	10,000	29,000	91,000	

General Progress: The general progress with both the co-financing and PIGGAREP activities have been satisfactory.

#### PICP

Communique has been signed and proposals have been submitted. Three key activities for the Italian funds are:

1. The provision of improved lighting for the people of Ovaka, Hunga, Lape, Nuapapu, Matamaka, Falevai, Taunga, Otea, Kapa, 'Olo'ua and Ofu in the Vava'u Group. This will involve a total of 1445 people, 289 households, 11 schools, 2 health centres, 12 community halls, 16 churches and 7 retail shops.

2. The provision of improved lighting for a total of 3 villages in the island of Niuatoputapu [Hihifo, Vaipoa and Falehau] and Lofanga Island in the Ha'apai Group. There are 139 households and 430 people at Hihifo, 83 and 300 at Vaipoa, 78 and 290 at Falehau and 50 and 184 at Lofanga. This component will therefore benefit 350 households and 1204 people in total, in addition to 4 schools, 1 health centre, 4 community halls, 8 churches and 5 retail shops.

3. The third component is intended to strengthen the capacities of the District Solar Electricity Society Incorporated (Niuatoputapu, Vava'u and Ha'apai) to effectively manage their photovoltaic projects. There are currently 169 installed systems at Ha'apai and this will increase to 353 with the inclusion of Lofanga. 290 systems are planned to be installed at Niuatoputapu and 289 for Vava'u with Italian funds.

The IUCN project manager will visit Tonga early in the third quarter and this joint study will be discussed with the EPU in Tonga.

#### The EU EDF 10

Tonga will receive a total of 5.9 million Euro from the European Union's 10th EDF. This is generally for renewable energy for development and sustainable livelihoods. The Financing Agreement is to be signed in November 2007 during the Forum Meeting in Nuku'alofa. The EU will then send a study team to consult Tongan authorities on project activities to be supported. A consultant doing the project identification study visited Tonga during the 1 QTR 08. Tonga will propose to the EU in 3 QTR 08 that its project will be on wind

#### PIGGAREP

EPU participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

The request for proposals for the review of the Ha'apai Solar Electricity Incorporated was launched during the quarter. The Tonga Energy Planning Unit (EPU) considered the financial proposals to be too high and therefore explored the opportunity of engaging a team of local experts to do the review. This involved using the services of a local teacher whose MSc thesis was based on the HSEI and was assisted by SOPAC with her study. Unfortunately, she declared herself unavailable at the last minute due to her teaching commitments.

Tonga has proposed the rehabilitation of the PV systems installed in 2 islands in the Ha'apai Group that were electrified before the HSEI was established to be funded under the IUCN/Italian programme. The Tonga proposal also included the electrification with solar PV of one island in the Ha'apai group. Since IUCN would like to conduct a feasibility study of this rehabilitation / new electrification, Tonga has been advised to consider doing the HSEI review and the IUCN study as just one study under the PIGGAREP. The IUCN project manager will visit Tonga early in the third quarter and this joint study will be discussed with the EPU in Tonga.

Tonga also submitted a draft PAS for a wind power feasibility study. This PAS was reviewed and returned to Tonga. Tonga has proposed to the European Union that its priority project in the EDF 10 (approximately 5.9 million Euro) will be wind power. A high level delegation from Tonga will discuss this project with the EU early in the third quarter and the PIGGAREP's value added activity will be revised accordingly.

				Yea	r 1 Quart	ters			
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
TV3	Dissemination of biogas technology introduced by PIEPSAP	Awareness	Alofa Tuvalu			5,000	5,000	10,000	
TV4	Support to TEC's outer island grid connected renewable energy projects	Technical	TEC	5,000	5,000	5,000	5,000	20,000	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.
TV5	Study and establishment of a RE Unit at TEC	Institutional	TEC				25,000	25,000	A follow-up to the PIEPSAP-funded base tariff review study. Unit will also look at loss reduction, DSM and fuel substitution
TV6	Training of TEC Outer Islands Supervisors on RE Technology			20,000				20,000	
TV7	Support implementation of Policy and Strategic Action plan	Policy Institutional	Energy			6,250	6,250	12,500	
	Sub-total Tuvalu			25,000	5,000	16,250	41,250	87,500	

General Progress: The general progress has been very satisfactory with both the co-financing and the PIGGAREP activities.

#### 1) The Tuvalu Grid-connected PV project

Installation has been completed and the project has been commissioned. During the commissioning, an on-the-job training workshop was conducted for Tuvalu technicians and engineers.

#### The Alofa Tuvalu's Amatuku Project

#### PICP

Communiqué has been signed and a proposal was developed and submitted. The Tuvalu Photovoltaic Electricity Network Integration Project (TPVENI) is for USD800,000. These grid-connected PV systems are expected to bring about a reduction of 184 tonnes of carbon dioxide (CO2).

TPVENI is designed to deliver the following:

- New Energy Office structure
- Energy Coordinating Committee (ECC) established and terms of reference developed.
- Additional resources secured for the implementation of the Tuvalu Strategic Energy Action Plan Training programme for energy staff developed.
- Training conducted.
- Project Officer recruited over the duration of the Italy-Tuvalu Cooperation.
- Training activities and workshops conducted /convened.
- Scoping mission report with clear directions on how to proceed with the necessary next phases for the PV integration activities.
- Tender documents finalized and contract signed.
- Equipment delivered to sites.
- Grid connected PV systems installed and commissioned.
- Monitoring and evaluation report available.
- Relevant training /capacity development programme formulated.
- Training conducted.

The EESLI Project Coordinator visited Vanuatu in 2 QTR 08 to confirm work plan and budget.

#### PIGGAREP Activities

TEC participated in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that was held at Port Vila, Vanuatu on 21 – 25 April 2008.

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		activities								
Sub-total Vanuatu         0         16,500         44,500         25,000         86,000			<u> </u>			16.500	44 500	25.000	96.000	

General Progress: The general progress has been satisfactory. Vanuatu did not have any activity planned for the first quarter, however, it has actively drafted a PAS in preparation for the 2 QTR.

#### The Sarakata Hydro Project

Sarakata has two 300 kW turbine generators, installed in 1994 and 1995, that supplied 70% of the electricity to Luganville, Santo in 1995. Growth in demand has made it impossible for the hydro generators to meet the peak demand, hence this 3rd phase to install a new 600 kW hydraulic turbine generator. This project will benefit the approx 20,000 residents of Santo.

The Sarakata project is owned by the GoV. The project is managed by the Power Utility (UNELCO). UNELCO pays GoV the equivalent of the price of oil saved from generating from hydro at Sarakata. This money goes to the Sarakata Fund which is specifically used to support other rural electrification projects, solar PV and grid-extension, in Vanuatu.

In preparation for the growing demand for electricity in Luganville, PIGGAREP will support the further assessment of the potential downstream and the conduct of a feasibility study which will include risks assessment. The support will also include building the general awareness of the surrounding communities about hydro, it benefits, how to avoid potential disasters and how they can help to look after the hydropower project system.

#### The joint Energy Unit and UNELCO EU ACP Energy Facility-funded projects on bio-fuel

On 17 July 2007, the European Commission approved the final selection of proposals that will benefit from grant co-funding from the ACP-EU Energy Facility. From the entire PICs, Vanuatu was the only country with proposals to be funded from this facility. Three out of the four approved projects were joint Energy Unti-UNELCO projects. These include the provision of renewable energy using locally produced copra oil as biofuel to: (1) 4 villages of North East Malekula island, Malampa Province, (2) 3 villages in Ambae Island, Penama Province, and (3) 2 villages of Vanua Lava island, Torba Province.

At Malampa, the project will bring energy to 660 households, 6 primary schools and one College, 2 dispensaries, in the villages of Lavalsal, Vao, Orap and Wala in the North East of Malekula Island. This will increase the rate of access to electricity from 6.8% to 7.8%.

At Ambae, the project will bring energy to 185 households, 1 primary schools, a branch of the University of the South Pacific (USP), 1

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments

hospital and 1 dispensary, in the villages of Saratamata, Lolowai and Longana in East Ambae. This will increase the rate of access to electricity from 6.8% to 7.1%.

At Torba, the project will bring electricity to 103 households, 2 primary schools, 1 college, 1 dispensary, in the villages of Sola and Mosine on Vanua Lava Island in the TORBA Province.

PIGGAREP will support these projects with studies to look at the sustainability of UNELCO's copra oil supply line including potential valueadded products and the environment impacts of its bio-fuel production and use. This study will also look at potential financial risks to UNELCO's copra oil effort and identify mechanisms which could be used to stabilize copra oil prices. Given UNELCO's 25% RE goal and its current and future RE programmes (as well as others' in Vanuatu), PIGGAREP will support a study of the potential benefits of registering these as CDM projects and building the local capacity to effectively manage CDM projects.

#### The VANREPA's EU ACP Energy Facility-funded project on wind

The Answer is Blowing in the Wind – Improving access to energy services for the communities of Futuna & Aneityum Islands (Vanuatu) using wind technology is the fourth Vanuatu project to be approved for funding under the EU-ACP Energy Facility. The main activities of the project will focus on: i) the installation of wind turbines at key public institutions at communities in Futuna and Aneityum, installation of battery banks with sufficient capacity to enable households to recharge batteries, ii) the establishment of an island focused Renewable Energy Service Cooperative (RESCoop) for the management and maintenance of the systems on both Futuna & Aneityum Islands, iii) the setting up of a billing system for the delivery of energy and the rental of efficient lighting kits and recharge battery 'tokens' to households, aimed at sustaining the RESCoop, iv) the training of selected members on the operation, maintenance, financial management of the installed systems as well as potential energy uses and sustainable energy consumption, and v) the identification and promotion of new opportunities and income-generating activities, training of would-be local entrepreneurs. The final direct beneficiaries are over 1,100 people. Approx. 237 households, 4 schools, several kindergartens, 5 health centres (dispensaries), community governing offices, tourism, fishing and handicraft cooperatives, business centres with access to energy from this project.

PIGGAREP will support VANREPA's wind project in the areas of awareness and the support and identification of income generating opportunities.

PIGGAREP will also provide support to establishing an environment which is conducive to investments on RE in Vanuatu. As such, the Electricity Act will be reviewed to allow private generators to come in and generate RE and sell to the grid. An annual RE and EE programme will be conducted to give due recognition to achievements and innovative ideas in these two areas.

#### PICP

Vanuatu has proposed the following and have been approved for funding:

- the development of human resource(s) on the implementation and management of policies, strategies and action plans; institutional strengthening by encouraging the participation of relevant stakeholders including the involvement of rural women; and energy data collation and analysis. All these areas are consistent with and given prominence in the Vanuatu National Energy Policy framework.
- rehabilitation of solar PV projects on the islands of Santo and Malekula; and (ii) to progress the proposed Talise River hydropower project on the island of Maewo in Penama province
- wind resource assessment programme in the six Provinces of Torba (Sola Vanua Lava Island, and Gaua Island), Sanma (Port Olry Village Santo Island), Penama (Ahivo area Pentecost Island), Malampa (Norsup area Malekula island) and Tafea (Ipota Erromango Island), (White grass area Tanna Island), Shefa (Tongariki island).

The EESLI Project Coordinator will visit Vanuatu in 3 QTR 08 to confirm work plan and budget.

#### AusAID-funded Energy Advisor

AusAID confirmed during the quarter that it will fund a full-time resident Energy Advisor who will be engaged for two years to assist the Energy Unit in undertaking its responsibilities and in building long-term capacity for the delivery of an expanded work program in the power sector. The objective of this technical assistance project is to strengthen the capacity of the Energy Unit within the Ministry of Land, Energy, Environment, Geology, Mines and Water Resources. Support for the position and related activities will be provided by the Governance for Growth (GFG) Program, which is a joint initiative of the Governments of Vanuatu and Australia, funded by AusAID.

#### PIGGAREP

The Vanuatu Energy Unit (EU) submitted a draft PAS to review its rural electrification policy. It was later discovered that AusAID is funding an Energy Advisor for the EU and the role of the advisor will include reviewing the REP.

The EU then developed a PAS for a review of a hydropower study that was conducted at Talise in 2001-2002. Several revisions of the PAS were made pending the receipt of the study report, which is only available in a hard copy. However upon receipt of this report, it was obvious that some bias was given towards hydropower, that the study did not look at other electrification options and that it was not a full fletched economic feasibility study. Vanuatu's proposal to the IUCN/Italy was to construct this hydropower project.

	. Year 1 Quarters								
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
It was therefore raised with the EU and IUCN that the ToR be expanded to include other electrification options and for a full technical, economic and environmental assessment to be made of the proposed project. The IUCN project manager will visit Vanuatu in late July and will finalise the ToR with the EU.									
	1	2	wareness activities fo es for its RE Develop						1 0

strategy and supportive educational resources for its RE Development Activities. The ToR was drafted by a potential consultant. VANREPA was advised that the draft ToR reflects its needs and not the capability of the potential consultant. No further developments from VANREPA on finalising the ToR and drafting a PAS.

Grand Total for Year 1 Country Activities:	177,812	178,000	237,777	299,665	893,254	
РМО						

				Year 1 (	Quarters		
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2 3	4 Year Tot	
onsultant	to take footage	s at the workshop	ding Workshop with s	and including	interviews with	participants. Th	ELCO. Taiwan also funded a hese footages will be used in
lan for 20	008 – 2010. A n	ew Climate Chan		thin the minis	stry has been esta	ablished to maxi	non Islands with a Corporate mize national benefits from EP.
0		· · · · · · · · · · · · · · · · · · ·		1		, ,	une. By the end of this year the ssions are stipulated in the
vith Keith esearch u	Baker, for the andertaken into e	Department of En energy programs a	vironment, Water, He	ritage and the c, and is inter	Arts (DEWHA) ded to inform th	. The report pro	a) Pty Limited in conjunction esents an evaluation of the ding round of the Renewable
Continued	the co-financin	ng discussions with	h the Renewable Ener	gy and Energ	y Efficiency Part	nership (REEEF	P) as well as IUCN.
			pport from other prog 'anuatu on 22 April. T				n and Media Section. A press ghlights for April.
Assistance	was also provi	ded in developing	the PIGGAREP web	-page which i	s expected to be	on air early in 3	QTR 08.
ompleted	the second Pro	oject Steering Con	nmittee meeting on 15	<sup>th</sup> April.			
1et a repr	esentative of JI	CA on 30 April to	discuss PIGGAREP	assistance to 7	Fuvalu to ensure	no duplication v	with future JICA assistance.
Wind Geothe Centra Review	Power Feasibili ermal Study – P lised solar PV f	ty Study - Nauru PNG feasibility study – i Solar Electricity	ls for the following ac PNG Incorporated – Tong				
			articipate at a worksho uss possible joint CDI			Energy for Asia	/ Pacific in Manila on 9-11
A progress	meeting was h	eld with UNDP S	amoa on the 2 <sup>nd</sup> May.				
			on meeting on 6-8 Ma nal CROP EWG meet			vities in Samoa,	Tonga and Vanuatu. The
	pated in a Same ent on 22 May.	oa Electric Power	Corporation's (EPC)	roundtable dis	scussion on com	munity consultat	tion / involvement in hydro
The PM pa	articipated in a	roundtable discuss	sion of Samoa's GHG	inventory rep	ort for its Secon	d National Com	munication on 26 <sup>th</sup> May.
UCN's n							nt position concept, outcome vities in Samoa, Tonga,
consultation this meet	e	as held on 19 Jun	e with a FAO-funded	consultant do	ng a biofuel stud	ly for EPC. PIG	GAREP invited IUCN/EESL
<u> </u>	<b>Total for PM</b>			53060 66	,560 53,560	53,266 22	6,446

Financial Report				SCON.
FRUI				
(a) Designated Institution:	Secretariat of the Pag	cific Regional Enviro	onmental Programme (S	
(b) Award Title	: 'Pacific Islands (	Greenhouse Gas	Abatement through	
	Renewable Energy	/ Project (PIGGAR	<u>REP)</u>	
Award ID (c) For the period:	04 Amril 0000 to 00	. I		
(d) Currency:	01 April 2008 to 30 US Dollars	June 2008		
(I)	<u>ee penare</u>	(11)		(111
Item		Chart of Accou	nt	Amoun
(f) Opening Balance:				190,75
(g) Advance Received: (h) Available Funds				53,809 244,560
Detailed Expenditures:	Account	Fund	Donor	244,000
Project ID:			-	
1. TECHNICAL CAPACITY BUILDING & TECHNICAL SUPPORT				
1.1 - Provide support to Renewable Enegry resource assessments and demonstration projects				
International Personnel	71200	62000	GEF Trustees	
Local consultants	71300	62000	GEF Trustees	
Contractual Services - Individuals	71400	62000	GEF Trustees	
Travel	71600	62000	GEF Trustees	
2. MARKET DEVELOPMENT 2.1 Support market development				
International Personnel	71200	62000	GEF Trustees	
Local consultants	71300	62000	GEF Trustees	
Contractual Services - Individuals	71400	62000	GEF Trustees	
Travel	71600	62000	GEF Trustees	
3. INSTITUTIONAL STRENGTHENING				
3.1 Provide institutional strengthening				
International Personnel	71200	62000	GEF Trustees	
Local consultants	71300	62000	GEF Trustees	
Contractual Services - Individuals Travel	71400 71600	62000	GEF Trustees GEF Trustees	
Traver	7 1000	62000	GEF Husiees	
4. FINANCING SUPPORT 4.1 Provide support to establish and enhance existing financing				
mechanisms				
International Personnel Local consultants	71200 71300	62000 62000	GEF Trustees GEF Trustees	
Contractual Services - Individuals	71300	62000	GEF Trustees	
Travel	71600	62000	GEF Trustees	
5. POLICY AND REGULATORY SUPPORT				
5.1 Provide assistance to establish and enhance existing and				
regulatory structures	74000	00000		
International Personnel Local consultants	71200 71300	62000 62000	GEF Trustees GEF Trustees	
Contractual Services - Individuals	71300	62000	GEF Trustees	
Travel	71600	62000	GEF Trustees	
6. INFORMATION AND AWARENESS ENHANCEMENT 6.1 Provide support to increased information and awareness in the				
area of Renewable Energy				
International Personnel	71200	62000	GEF Trustees	
Local consultants	71300	62000	GEF Trustees	
Contractual Services - Individuals Travel	71400 71600	62000 62000	GEF Trustees GEF Trustees	8,73 26,95
114751	71000	02000	GLF Hustees	20,955
7. EFFICIENT AND EFFECTIVE PROJECT MANAGEMENT				
7.1 National Consultative Workshops				
Local consultants	71300	62000	GEF Trustees	
7.2 Project Manager				
Contractual Services - Individuals	71400	62000	GEF Trustees	26,68
Travel	71600	62000	GEF Trustees	3,494
				Page 1

Financial Report				
				UN
(a) Designated Institution:			onmental Programme (S	PREP)
(b) Award Title			Abatement through	
	<b>Renewable Energ</b>	y Project (PIGGAR	EP)	
Award ID				
(c) For the period:	01 April 2008 to 3	0 June 2008		
(d) Currency:	US Dollars			
(1)		(11)		(111)
ltem		Chart of Accou	nt	Amount
7.3 Adninistrative Finance Officer	-	Chart of Accou	in i	Amount
Contractual Services - Individuals	71400	62000	GEF Trustees	
Contractual Services - Individuals	71400	62000	GEF Huslees	
7.4 SPREP Project Team Miscellaneous				
General Operating Expenses	7200	62000	GEF Trustees	5,035
7.5 Inception Meeting				
Travel	71600	62000	GEF Trustees	
(i) Total Expenditures				70,905
(j) Closing Balance:				173,655
(k) Outstanding Obligations:				-
(I) Planned Expenditures:				291,337
(m) Total Requirements:				291,337
(n) Advance Requested:				117,682
(ii) Auvance Requested.				117,002
Designated institution approval/signature:	Country office of	approval/signatu		
Designated institution approvai/signature.	Country office a	ippi oval/signatu	с.	
Name 8 Title: Astaria Takaay, Director, SDDED	Name 9 Titles N	Johand Hagua D	aidant Danraaantati	
Name & Title: Asterio Takesy, Director, SPREP	Name & Inte: <u>P</u>	naneeu naque, Re	esident Representati	ve, UNDP
0 investigation	0.			
Signature :	Signature:			
	Dete			
Date :	Date:			

<u>'Pacific islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP)</u> Planned Expenditure for Quarter 3 - 2008	
1. Technical Capacity Building & Technical Support	71,333
2. Market Development	23,778
3. Institutional Strengthening	23,778
4. Financing Support	23,778
5. Policy and Regulatory Support	47,555
6. Information and Awareness Enhancement	47,555
7. Efficient and Effective Project Management (PMO Costs)	53,560
Total Planned Expenditure for Quarter 2	291,337
Balance of funds available	(173,655)
Advance required	117,682