

QUARTERLY PROGRESS REPORT¹

Third Quarter 2008



1. Country: Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Island, Tonga, Tuvalu and Vanuatu

¹ 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.

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:** 1st July – 30th September 2008
7. **Summary of Overall Project Progress:**

The general progress during the quarter was satisfactory with a notable improvement in terms of delivering on national in-country activities. The study to identify the best practical and cost effective way of establishing and operationalising a Renewable Energy and Energy Efficiency Unit at the Tuvalu Electricity Corporation was completed. The contract for the conduct of a Topographic and Geotechnical Survey for the Kiikii Windpower Project at Rarotonga, Cook Islands was signed and its implementation commenced during the quarter. The call for proposals for the conduct of a Network and System Modelling study of the Niue Power Corporation's Power System was launched during the quarter. The Project Activity Summary (PAS) for *Strengthening the Management Capacity of the Kiribati Solar Energy Company Ltd* through the design of a web-based software application for the management of KSECL's solar photovoltaic installations was finalised and endorsed by the PIGGAREP's Project Steering Committee (PSC). The PAS for the conduct of a *Financial, Economic and Environment Impact and Institutional Assessment of the Mango and Mo'unga'one Rehabilitation Project in Tonga* was finalized and endorsed by the PSC and the study was conducted by a local team of experts during the quarter. Nauru has finally given the go ahead with the signing of the consultancy contract for its wind power feasibility study. This contract will be signed early next quarter.

The draft of the PIGGAREP's first Annual Project Report / Project Implementation Report (APR/PIR) was completed during the quarter. The third teleconference meeting of the PSC was completed too. The internal review of the capacity of the PIGGAREP's Project Management Office (PMO) was completed and a draft was circulated to the PICs. The PIGGAREP PMO secured funding of US\$50,000 from Taiwan to support capacity building on grid-connected renewable energy systems in the Pacific's Small Islands States in 2009. The PMO and the IUCN Oceania have agreed to have back-to-back meetings at Apia next quarter. This will be PIGGAREP's annual multipartite review (MPR) meeting and IUCN's Inception Phase Meeting.

The general progress per PIC can be seen below:



The contract for the conduct of a *Topographical & Geotechnical Survey* on a possible wind farm site at Rarotonga was signed. This followed the evaluation of proposals, which was jointly done by the PIGGAREP PMO, the power utility (Te Aponga Uira - TAU) and the Energy Office. Fraser and Thomas Partners of NZ is the contractor. The study was supposed to be completed by the end of the quarter. The draft report for this study was received during the quarter and it has interim recommendations which included: (i) It is not feasible to construct an access road on the only suitable ridge within the land identified in the ToR to service the proposed wind farm, and (ii) On the ridge proposed for the wind farm it would not be possible to construct platforms for any of the recommended 275kw turbines and will currently only accommodate a platform for one of the proposed 100kw units. Even with major earthworks it would not be possible to construct further platforms for the recommended wind turbines. The findings of Fraser Thomas are currently being verified with a view to considering alternative sites.

PIGGAREP PM visited the Cook Is in August 2008 for the Pacific Power Association's annual conference. This visit provided an opportunity to join TAU and Energy in opening the topographical and geotechnical study proposals and to meet and agree on the evaluation template. The PM was requested by the Prime Minister's Office to comment on the draft Cook Is Sustainable Energy Action Plan and this was completed during the quarter.



Fiji

Fiji offered to assist with the conduct of the review of the capacity of the PIGGAREP PMO. There has been no further communications from Fiji for its inputs neither into the study nor on matters relating to its activities in the PIGGAREP. Attempt is being made to invite a representative of the Fiji Electricity Authority (FEA) to the MPR in November 2008 in order to link PIGGAREP to FEA's major RE developments.



Kiribati

The PAS for the strengthening of the effectiveness of the management of the Kiribati Solar Energy Company Ltd through supporting the development of a software known as the RESCO Manager was finalised and endorsed by the PIGGAREP PSC. KSECL has recommended that two consultants that earlier worked on earlier versions of RESCO Manager be engaged for this project. Consultancy contracts have been drafted and to be finalised and signed next quarter. The co-financing activity was to include an UNDP-funded training of trainers project. The Project Document for this activity has undergone internal reviews at UNDP.

A two-day consultation workshop on Kiribati's proposed Energy Policy was conducted on August 4th and 5th 2008 with the assistance of SOPAC.



Nauru

On the 29th of August 2008, the Nauru government endorsed its National Energy Policy and Strategic Action Plan Framework (NEPF). The NEPF is now Nauru's governing roadmap for the development of its energy sector. Government also endorsed Nauru's target of 50% renewable energy by 2015. This development has created renewed interests on Nauru's stalled Wind Power Feasibility Study. PIGGAREP has now been given the go-ahead with the signing of the wind power consultancy with Factor 4 Energy Projects GmbH of Germany.



Niue

A PAS for a Consultancy Study to do a Network and System Modelling of the Niue Power Corporation's Power System was finalised and endorsed by the PSC during the quarter. The call for proposals was launched with the 3rd of October 2008 as the deadline. A draft template was prepared for the evaluation.

REP-5's future activities in Niue will include training and the installation of a 35-55 kW grid-connected PV system. Discussions were conducted with REP-5 and Niue Power Corporation on linking the Taiwan-funded training project on grid-connected RE systems with the REP-5 activities in Niue. REP-5 has launched its invitation to tender for the Niue grid connection project and the joint training activity is planned for February 2009.



PNG

There has not been any significant development with PIGGAREP in PNG, in particular the Sinivit geothermal and the Mabuduwan mini PV grid projects. On Mabuduwan, the PNG Sustainable Energy Limited (PNGSEL) advised that they are still waiting for the funding agreement to be in place. PNG Sustainable Development Programme, who is interested in putting up the funds for the project, is still interested but has requested financial analysis on the various electrification options. The CEO of the PNGSEL resigned during the quarter.

A meeting between the UNDP PNG Country Office, Department of Energy and PNGSEL took place during the quarter to look at progressing the implementation of PNG's work plan in the PIGGAREP.

Following the PM attendance at the PPA annual conference in Rarotonga, PNG Power enquired about possible collaboration with the PIGGAREP but nothing concrete has been confirmed. PNG Power is reported to be involved in a 18 MW hydropower project at Yonki Toe and other hydropower prospects that range from around 20kW to 3MW. Similarly, PIGGAREP was approached by the Chair and CEO of Bismark Energy, a newly formed PNG Company (privately owned) that is investigating the possibility of developing a geothermal plant (60 MW) in East New Britain (Rabaul), for possible areas of collaboration. As in Fiji, attempts are being made to invite a representative of the PNG Power to the MPR in order to link PIGGAREP to the power utility's major RE developments.



Samoa

A PAS for the Electric Power Corporation's wind and hydro resource monitoring interventions was developed during the quarter. UNDP-GEF commented on these two PAS and they are currently being reviewed before endorsement for implementation.

The PM provided assistance to the Samoa Ministry of Natural Resources and Environment through the drafting of a Term of Reference and a preliminary report on Technology Needs Assessment (both mitigation and adaptation) as part of the preparation of Samoa's Second National Communication to the UNFCCC.



Solomon Is

A workshop organized jointly by the Ministry of Energy, Mines and Rural Electrification and the World Bank with support of AusAID was held on Monday July 28 2008. The Workshop, held in connection with the signing of a Grant and Project Agreement between the SIG, SIEA and the World Bank to improve SIEA's Performance and reduce blackouts and transmission losses, was to make an inventory of on-going and proposed projects to reduce the costs of energy and increase access to electricity in the Solomon Islands.

The World Bank and AusAID are planning on increasing access to electricity, particularly in the outer islands, and will work towards expediting investments in hydro capacity, substituting the current fossil fuel based electricity generation, exploring other possible renewable energy generation options, like fuelwood options for Guadalcanal, micro-hydro and/or biogasification, as well as switching diesel based generation to generation utilizing locally (on the outer islands) produced coconut oil.

The Department of Energy was advised to bring the current and future PIGGAREP work plans for the Solomon Is to this workshop to ensure complementarity with these initiatives. No update on the outcome of the workshop has been received from either the organizers or the Solomon Is Energy Department.

Since 1 January 2008 received total of four (4) draft PAS from the Solomon Is and commented on them. The common problem was with the co-financing and the absence of clear ToRs for the consultancy work that will be involved. The PAS have not been further revised by the Solomon Is Energy Department.



Tonga

The PAS for a feasibility study relating to the proposed rehabilitation of the PV systems installed in 2 islands in the Ha'apai Group and to be funded under the IUCN/Italian programme was finalised and endorsed by the PSC. Tonga preferred that local consultants conduct this study. The fieldwork and related meetings for this study were completed during the quarter and the feasibility study report is to be finalised next quarter.



Tuvalu

The study on how best to establish and operationalise a Renewable Energy and Energy Efficiency Unit within the Tuvalu Electricity Corporation was completed during the quarter. The final report will be posted to the PIGGAREP web page. This report is also being used in the development of a Project Information Format (PIF) for a RE project for Nauru, Niue and Tuvalu under the GEF Pacific Alliance for Sustainability (GEF PAS).

JICA is currently considering electrifying the outer islands of Tuvalu with hybrid systems. A team of Japanese experts visited two of Tuvalu's outer islands during the quarter.

IUCN launched its call for proposals for Technical Assistance for the Tuvalu Photovoltaic Electricity Network Integration Project (TPVENIP), which will involve the installation of a 40 kW PV system to be integrated into the electricity grid network at Vaitupu (TPVENIP).

PIGGAREP has been approached by TEC to provide the complementary training assistance in relation to this project.



There has been no further progress with the PIGGAREP activities in Vanuatu. Most of the communications with Vanuatu during the quarter were to do with the remuneration package for a local coordinator, which will look after PIGGAREP as well as with IUCN's. The package earlier proposed by the Vanuatu National Advisory Committee on Climate Change was considered to be too high (at the Director level). The matter has been resolved when the Director General for Lands, Mines and Natural Resources intervened and clarified that the position will later be absorbed by the Energy Unit. Therefore, it has to be at the Energy Officer's level for a smooth transition and take over by the Ministry of Lands after the PIGGAREP / EESLI projects.

Regional

Completed the third meeting of the PIGGAREP PSC on 15th July 2008. The representative from Vanuatu chaired the meeting. The minutes of this meeting were drafted, circulated for comments and has now been finalised.

Completed the internal review of the capacity of the PIGGAREP PMO. The draft report was circulated to the PICs and will be discussed at the PSC 4.

Contributed to the preparations for the Niue Forum Leaders' meeting. Contributed via an interview for a short film on climate change that was coordinated by the UN in the Pacific.

A declaration on Climate Change was one of the outcomes of the Niue Forum meeting. Managed to include a paragraph reading: *"NOTING that despite Pacific Island countries' low greenhouse gas emissions, they are taking significant steps towards reducing their reliance on fossil fuel, with its detrimental economic and environmental consequences."*

The PMO was involved in a meeting with a delegation from Japan on 25 August 2008 (led by Mr Kiminori Awama, Director, Oceania Division, Japan Ministry of Foreign Affairs) and discussed Japan's Cool Earth Partnership as well as the Japan-funded and PIFS-managed Pacific Islands Development Cooperation Fund.

Given the recent increases in the prices of fossil fuel, the PMO and SPREP's Publication and Media section put out an article titled ***"Renewable Energy is not a quick fix"*** on the September 2008 issue of the Island Business magazine. This can be found at http://www.islandsbusiness.com/islands_business/index_dynamic/containerNameToReplace=MiddleMiddle/focusModuleID=18165/overrideSkinName=issueArticle-full.tpl An earlier article was also made on biofuel when rising food and fuel prices became a major news item in the national, regional and international media.

During the quarter project status meetings was held with UNDP on the following dates: 25 July, 4 August, 22 August, and 5 September 2008.

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 3 QTR ACTIVITIES BY KEY PROJECT OUTCOME

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIVES/OUTCOMES 1: Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground			
INDICATOR: At least 10 resource monitoring studies completed by 2010. At least 3 RE projects rehabilitated / upgraded by 2011			
CK-11: MAM Wind resource assessment	5,000	<p>Supposed to continue from 2 QTR.</p> <p>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.</p>	The Energy Unit has indicated that this is a priority activity to follow the Rarotonga topographical and geotechnical study. A PAS has yet to be developed.
FJ-1: Hydro resource assessment in the upper Navua River Areas	500	<p>Was to have started 1QTR 08 and continue through the whole year.</p> <p>Co-financing is from the DoE's hydro and biogas development budgets.</p> <p><i>Hydro Resource Assessment:</i> Survey of eight hydro sites (Waivaka; Wainawaqa, Nauluvatu, Nacula, Vugalei, Nabalasere, Namalata, Namako.</p> <p>Installation of monitoring station and monitoring of hydro resources for 3 years</p> <p>Detail designing of 2 micro hydro Projects (Buca & Naikorokoro)</p> <p><i>Establishment of Biogas Market:</i> Master Biogas Builder to train the trainers on the construction of digesters.</p>	<p>Activity has been redesignated as <i>Supporting the Renewable Energy Sector (Hydro, Biogas) in Fiji</i>. 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.</p> <p>Awaiting DoE to finalise the PAS, including ToRs for the biogas training and construction and the quotes for the hydro monitoring and biogas supplies.</p>
NA 1/08 - Expanding the	80,000	REP-5 activities are used as	PAS was prepared, finalised and

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
Renewable Energy Market in Nauru (from solar photovoltaic to include wind power)		<p>co-financing. A tariff review study is planned for August 2008 (60,000 €)</p> <p>Energy Officer recruited in Nov 2007 (40,000 €)</p> <p>Tender for the 40 kWp grid-connected PV launched. Contract to be awarded by end of April 2008, installation by January 2009 (500,000 €).</p>	<p>endorsed by PSC 1.</p> <p>Tender for the wind power feasibility study took place during 2 QTR 2008. Evaluation has been completed and successful bidder has been notified.</p> <p>Signing of the consultancy contract has now been cleared from Nauru and this will take place early next quarter.</p>
PN-1: Buakap Aidpost Solar PV System	4,452	Co-financing is from the Italian-PIC Cooperation Programme (IPCP).	No PAS developed yet.
PN-4: Solar Photovoltaic Project for the Baiteta Village Aidpost In the Madang LLG, Madang Province	2,774	<p>Co-financing is from the Italian-PIC Cooperation Programme (IPCP). Communiqué has been signed, proposal has been developed and submitted.</p>	<p>Was to have started 1 QTR 08. A PAS was drafted but the co-financing is not forthcoming.</p> <p>Project proponent is frustrated with the lack of communication on his Italian proposals.</p>
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 and to run until end the year. A PAS is yet to be developed.
SI-8: RE surveys and assessments for hydro, wind and solar	2,000	Energy Office budget for RE activities is to be the co-financing.	Supposed to start in 3 QTR 08 and to run until end the year. A PAS is yet to be developed.
SI-22: Solar system grid connection at SITAFE	2,500	Energy Office budget for RE activities is to be the co-financing.	Supposed to start in 2 QTR 08 and to run until end the year. A PAS is yet to be developed.
TO-2: Technical evaluation of the solar installations	9,000	<p>Co-financing is from the IPCP. 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.</p> <p>The tender for the supply of the PV systems was launched by IUCN during the quarter.</p>	<p>Was to have started and completed by 1 QTR 2008. This activity has been redesignated as the Institutional, Financial / Economic and Environment Impact Assessment of the Mango and Mo'unga'one Solar Photovoltaic Rehabilitation Project A PAS was developed, endorsed by the PSC and the field work commenced during the quarter.</p>
TV-4: Support to TEC's outer island grid connected renewable energy projects	5,000	<p>Installation of the 40 kW grid connected PV system was completed during 1 QTR 08. Project costed approximately USD 412,000.</p> <p>Further grid connected solar</p>	<p>TEC has indicated that PIGGAREP pick up the training activities associated with this project. The exact nature of the training will be finalised based on the IUCN-sponsored study. A PAS will then be drafted</p>

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
		PV in the outer islands have been discussed under the IPCP. During the quarter, IUCN launched the call for proposals for a study of the PV grid-connected project proposed for Vaitupu.	accordingly.
VU-14: Review of the 2002 Talise Mini Hydro Feasibility Study	9,000	Talise has been proposed and approved for funding under the IPCP.	This activity was to have started 2 QTR 08 and completed 3 QTR 08. Unfortunately the discussions during the quarter has focussed mostly on the remuneration package for a PIGGAREP / IUCN project coordinator. This issue was settled during the quarter. It is hoped that the drafted PAS will now be finalised in 4 QTR 08 and for the study and implementation to proceed.

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIVES/OUTCOMES 2: Expansion of the market for RET applications			
INDICATORS: At least one RET company in 3 PICs by 2012, At least 100 MW of additional RE-based energy systems installed by 2015, 1 million litres of copra oil use as fuel by 2012, 4 feasibility studies completed by 2010 and 2 RE-grid connected projects by 2012			
FJ-5: Establishment of the Biogas market	10,000		A PAS was developed and reviewed.
KI-12: Feasibility study on PV-grid pilot project at SEC Headquarter.	9,000		A PAS is yet to be developed.
SA-14: RE and related products Development & promotion annual programme	10,000		A PAS is yet to be developed.
SA-15: 2.4.3 (2.1.2, 5.3.1, 4.3.1) - prefeasibility studies on identified projects for 1 potential source identified in 2.1.1	5,050		A PAS is yet to be developed.
SI-5: Feasibility study for mini hydropower plants on Rori (Malaita) under Rural Electrification Framework	2,500	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.	Supposed to have started in 1 QTR 08 until 3 QTR 08. A PAS is yet to be developed.
SI-11: Support to	2,000	Energy Office budget for RE	Supposed to have started in 1

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
investment Development Projects		<p>activities is to be the co-financing.</p> <p>New govt budget (key co-financing) was tabled in Parliament in March 2008 and still no advice from the Solomon Is on the outcome.</p>	QTR 08 and to run for the whole year. A PAS is yet to be developed.
SI-17: Feasibility study of economic of scale of production/use of coconut oil /bio-fuel as fossil fuel substitute in power generation in outer islands SIEA power stations.	1,000		Supposed to have started in 2 QTR 08 and to run for the rest of the year. A PAS is yet to be developed.
SI-18: Feasibility study of solar Grid interactive system for National Referral, Lata, Kira Kira, Auki, Malu'u,Gizo, Tulagi and Helena Goldie Hospitals	2,000		Supposed to have started in 2 QTR 08 and to run for the rest of the year. A PAS is yet to be developed.
SI-20: Micro Biofuel Enterprise Development	2,000		Supposed to have started in 2 QTR 08 and to run for the rest of the year. A PAS is yet to be developed.
SI-21: Rural Communities Solar PV lightings/water pumping projects feasibility studies and funding	2,000		
SI-26: Micro hydropower prefeasibility study at vaious sites at Atoifi Hosp., Kounabusu (Kwaio), Manawai (upgrade), Masupa'a, River Side and Rara village, all in Malaita	2,000		Supposed to have started in 2 QTR 08 and to run for the rest of the year. A PAS is yet to be developed.
SI-27: Biofuel Study & Development	1,000		Supposed to have started in 2 QTR 08 and to run for the rest of the year. A PAS is yet to be developed.

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIVES/OUTCOMES 3: Enhancement of institutional capacity to design and implement RE			
INDICATORS: At least one RE project designed/implemented by local experts in 4 PICs by 2012 At least ten energy offices have established national energy coordination committees, have clear mandates, strategies and action plans by 2012			
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 and run through the whole year. 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	<p>A UNDP Training of Trainers project plus the Solar Energy Company's funding of IT contracts are the co-financing activities.</p> <p>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.</p> <p>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.</p>	Was to have started 2 QTR 08 and continued through to 4 QTR 08. A draft PAS was prepared, reviewed and endorsed by the PSC. Consultancy agreements had been drafted and will be signed 4 QTR 08.
NI-4: Capacity Building, NPC/Private Sector	2,000		Supposed to have started 1 QTR 08 and run through the whole year. A PAS is yet to be developed.
NI-6: Energy Coordinator / AFO	3,750		Was to have started 1 QTR 08 and run through the whole year. A PAS is yet to be developed .
SA-5: Establish the Designated National Authority (DNA) for CDM activities	2,500	<p>ADB-funded power sector expansion programme.</p> <p>This ADB-sponsored technical assistance began during the quarter and the PIGGAREP PMO was consulted in relation to CDM initiatives in the region.</p>	<p>PIGGAREP value-added activity is to be finalised with the Electric Power Corporation.</p> <p>A PAS is yet to be developed.</p>
SI-14: Setup of RE Unit	2,000	Energy Office budget for RE activities is to be the co-	Was to have started 1 QTR 08 and run through the whole year.

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
		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.	A PAS is yet to be developed and this activity may benefit from the completed study in Tuvalu.
TO-1: Joint annual committee meetings	Subsumed into TO-2: Technical evaluation of the solar installations		

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIVES/OUTCOMES 4: Improvement of the availability of funding for existing and new RE projects			
INDICATOR: At least US\$100 million of new investments in RE by 2015			
SA-6: 2.2.5 Build capacity in CDM process and implementation	5,000	A Project Management Unit has been set up at the Electric Power Corporation as part of the ADB-funded power sector expansion programme. ADB has begun with a consultancy study on the establishment of a Clean Energy Fund and establishing a CDM DNA in Samoa.	The incremental activities have not been defined and a PAS is yet to be developed.
SA-7: Establish a Clean Energy Fund	2,500	ADB has begun with a consultancy study on the establishment of a Clean Energy Fund and establishing a CDM DNA in Samoa.	The incremental activities have not been defined and a PAS is yet to be developed.
SA-8: 2.2.8 Build capacity in Clean Energy Fund operational processes	5,000	ADB has begun with a consultancy study on the establishment of a Clean Energy Fund and establishing a CDM DNA in Samoa.	The incremental activities have not been defined and a PAS is yet to be developed.
SA-18: Develop funding proposals	1,000		Was to have started last quarter. 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 and completed 3 QTR 08. A ToR was drafted with suggestions to relate it closely with the PIEPSAP's base tariff study of 2007. No further progress from the Solomon Is Electricity Authority.

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIVES/OUTCOMES 5: Strengthened legal and regulatory structures in the energy and environmental sectors			
INDICATORS: At least 10 PICs have adopted Energy Policies and Action Plans by 2012. 3 PICs with draft Energy Legislations by 2011.			
FJ-8: Review/adopt/enact relevant policies, frameworks, legislations for RET; Enactment of Fiji's Energy Bill	2,500		Was to have started 1 QTR 08 and run through the whole year. A PAS is yet to be developed.
NI-7: Develop renewable energy plans and targets for 2010, 2020 and 2050 <i>Supporting Grid-connected Renewable Energy Systems through Network and System Modelling.</i>	1,500	The tender for the supply of the grid-connected PV equipments and the associated training was launched during the quarter.	Was to have started 1 QTR 08 and run through the whole year. This activity has been redesignated as <i>Supporting Grid-connected Renewable Energy Systems through Network and System Modelling</i> . A PAS was developed and endorsed by the PSC. The call for proposals was launched during the quarter. The budget will obviously be much larger than 1,500.
NI-8: Develop/Review fiscal policies to facilitate the achievement of the RE targets / Expansion	3,000		A PAS is yet to be developed.

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIVES/OUTCOMES 6: Increased awareness and knowledge about RE among key stakeholders			
INDICATORS: 500 PICs undertake local training on RE by 2012. Comprehensive annual RE awareness programmes in 10 PICs by 2010			
CK-4: Public Awareness Campaigns	2,500		A PAS is yet to be developed.
CK-17: Support to the Committee working on renewable energy standards	750		Was to have started 1 QTR 08 and continued to 2 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 and run through the whole year but later reprioritised. A PAS is yet to be developed.
KI 5: Training component related to the installation of the	17,000	A Project Document was drafted and reviewed according to KSEC's needs	This activity should be merged with the KI-16: RESCO Manager activity under Outcome 3. PIGGAREP and UNDP are jointly funding the

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
new RESCO Manager		and is currently being reviewed internally by UNDP.	training component of the RESCO Manager exercise.
KI-10: Refresher technical training following the EDF 8 OI electrification project.	10,000		A PAS is yet to be developed but this training can be a part of the training under the RESCO Manager exercise.
NA-2: Information dissemination on renewable energy– all types (paper, radio, TV, leaflets, booklets, educational material) and translation into Nauruan.	2,500		A PAS is yet to be developed.
NA-3: Awareness raising and public education – educational material, information days in all communities, (working with NGOs and community leaders), school fairs, renewable energy competitions, meetings with government officials, information days for government	2,5000	Tender for the supply and installation of the PV grid-connected systems and the associated training has been launched.	A PAS is yet to be developed.
NA-4: Create an 'Energy and Environment' curriculum for the schools	10,000	REP-5 awareness activities are the co-financing. A consultant visited Nauru in Feb 2008 to start designing the REP-5 awareness activities. Report is expected in 2 QTR 2008.	This activity was to have started 1 QTR 08 and to run through the whole year. Has been reprioritised and replaced with a wind power feasibility study (see NA 1/08 above).
SA-6: 2.2.5 Build capacity in CDM process and implementation	5,000	ADB is conducting a consultancy study on the establishment of a Clean Energy Funds and establishing a CDM DNA.	A PAS is yet to be developed.
SA-20: Development of standards required to meet GHG emission reduction requirements and use of RE for local manufacture and export productions - trainings dissemination	1,000	While not used as co-financing for the PIGGAREP, the Samoa Ministry of Natural Resources and Environment have finalised their GHG inventory as part of their second national communication report. A contract for the	A PAS is yet to be developed.

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		production of a technology needs assessment report was signed during the quarter.	

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
IMMEDIATE OBJECTIVES/OUTCOMES 7: Effective Management of the PIGGAREP			
INDICATORS: Project Activities are implemented within budget and on time, in close collaboration with other related and parallel activities in the PICs.			
PMO	53,560	<p>SPREP completed the Climate Change Film in Suva in September 2008. The initiative was a SPREP joint effort with IUCN and the British High Commission. These films also highlighted renewable energy as a mitigation measure for climate change.</p> <p>Arising from the Niue Forum Meeting were some fixed timelines for the rationalisation of SOPAC into SPREP and SPC. It is mostly likely that SOPAC's energy programme will be streamlined with SPREP's greenhouse gas mitigation effort, which will of course have some positive impacts on the management and implementation of the PIGGAREP.</p> <p>The PIGGAREP web-page became fully functional during the quarter and will be updated regularly.</p> <p>PM met Mr David Dolphin of the NZ High Com in Apia and Mr Guy Waipara of Meridian Energy Ltd of NZ on 16 July 2009. Meridian is interested in bringing its own capital to do promising energy projects in Samoa. Meridian has continued the positive dialogue with EPC and are</p>	<p>PM met Dale Hermanson of PASIFIKA Communications and got interviewed on camera on 16 July for a film on climate change, sponsored and coordinated by UN in the Pacific, which was launched at the Niue Forum meeting in August 2008.</p> <p>PIGGAREP PM reviewed the draft Cook Is Sustainable Energy Action Plan.</p> <p>Met a delegation from Japan on 25 Aug 2008 (led by Mr Kiminori Awama, Director, Oceania Division, Japan Ministry of Foreign Affairs) and discussed Japan's Cool Earth Partnership as well as the Japan-funded and PIFS-managed PI Development Cooperation Fund.</p> <p>Completed the third Project Steering Committee meeting during the quarter.</p> <p>Progress meetings were held with UNDP Samoa on: 17 July, 25 July, 4 August 22 August and 5 September.</p> <p>Met with Mr Thomas Opperer and Mr Robert de Raeve, Head of Operations of the EC Delegation in Suva. Meeting was about a climate change declaration that the EU wishes to sign with African, Caribbean</p>

3 QTR Activities	Budget (USD)	Status of co-financing activities	Status of incremental activities
		definitely interested in another trip to discuss with EPC General Manager Joseph Walter whether there is an opportunity for Meridian to enter into a partnership arrangement to develop both wind and solar and possibly help with energy efficiency initiatives. Meridian was aiming to be back in Samoa in October 2008 and its team will include its CEO, Mr Tim Lusk.	and Pacific Islands countries. PM met with Paul Fairbairn of SOPAC on 2 September 2008 and updated each other on respective current activities, REM & PEMM 2009 and the EDF 10 regional energy project proposal. The PM participated at the annual conference of the Pacific Power Association, at Rarotonga, Cook Is. Met the IUCN EESLI Project Coordinator in Tonga as part of the preparatory meetings prior to the field mission to conduct the feasibility study on the rehabilitation projects.

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

9. Challenges/Issues Encountered

The preparation of the APR / IPR highlighted the need to retrofit the PIGGAREP logframe so as to make it up to date, practical and to make future reporting easier.

There is still the need to address the fundamental issues regarding the slow progress with the implementation of project activities and the active participation of countries in the project's reporting and monitoring processes.

10. Solutions Applied (to address issues and challenges)

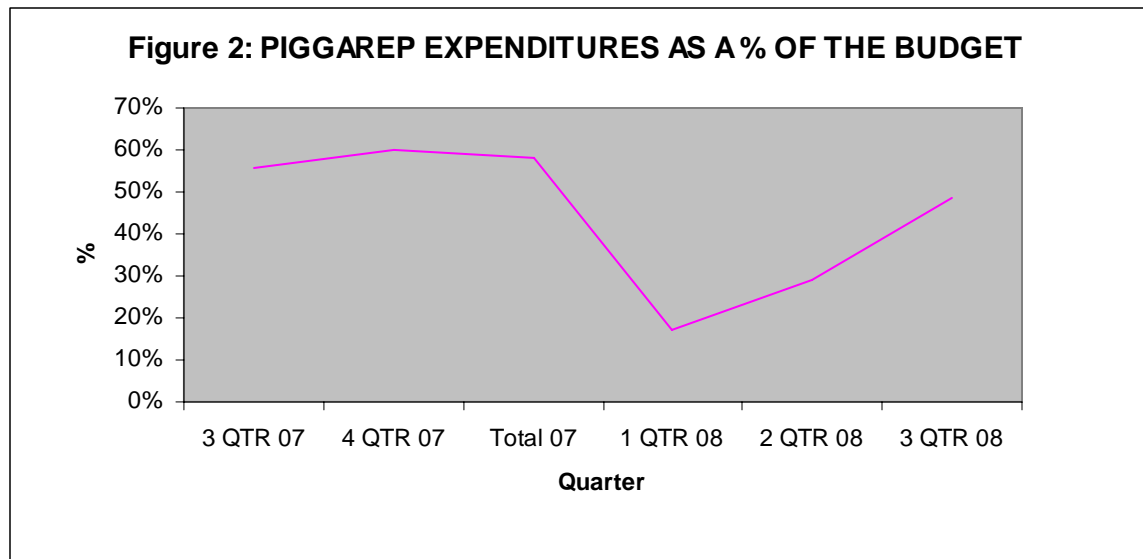
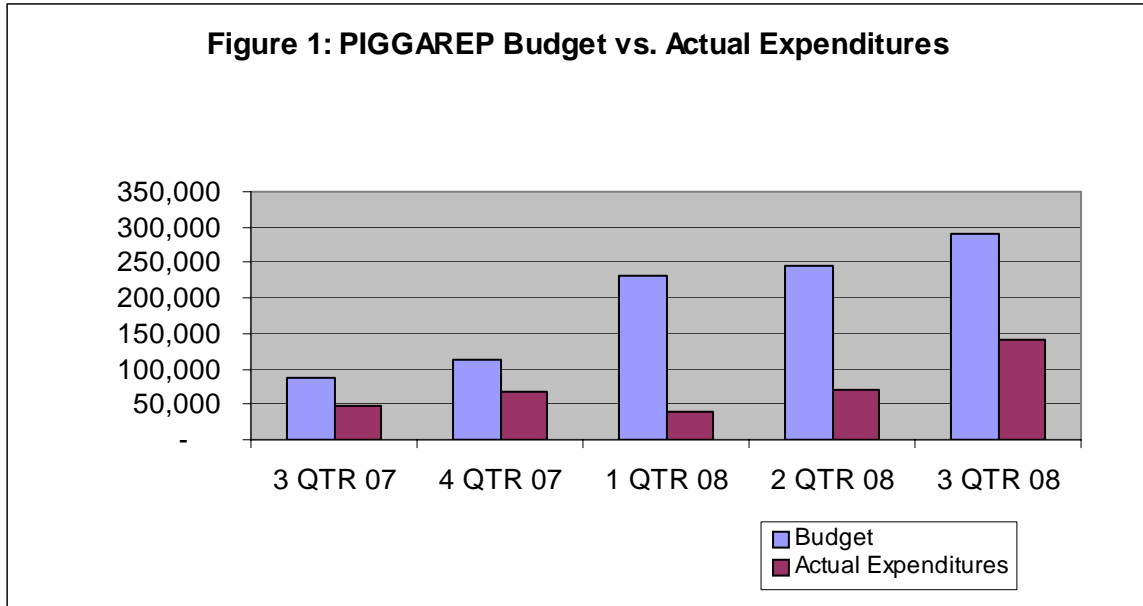
A trilateral meeting between the UNDP Samoa country office, SPREP and UNDP-GEF is planned for October 2008 aimed at retrofitting the project logframe. This tri-lateral meeting will also discuss how best to conduct the multipartite review meeting in November 2008 in order that it will effectively address all issues regarding the implementation of the project.

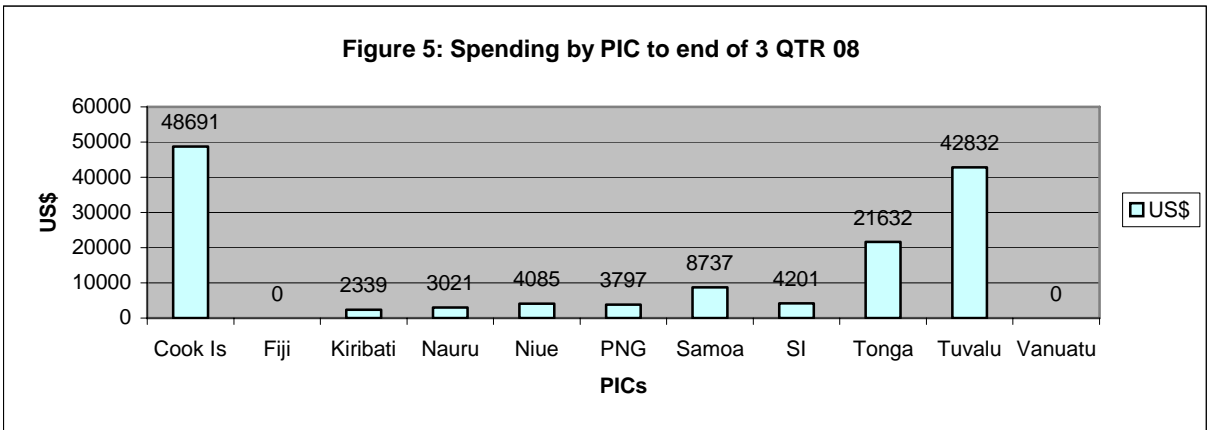
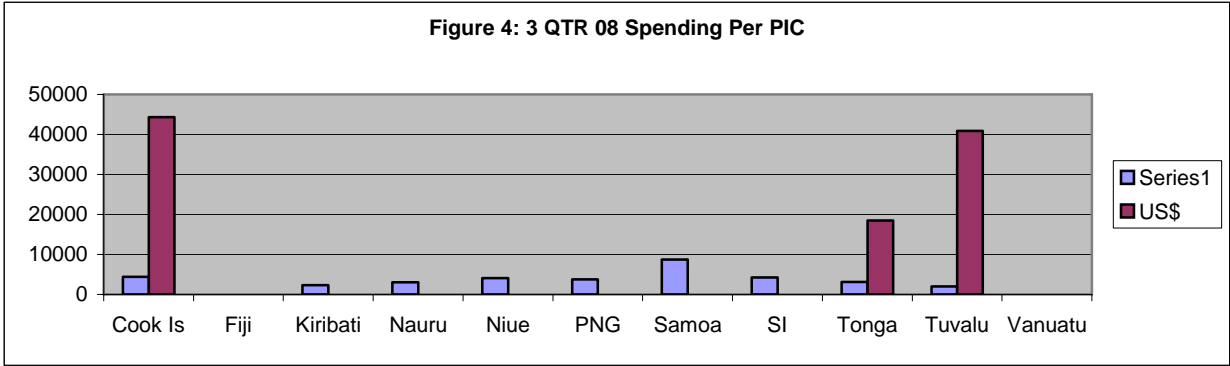
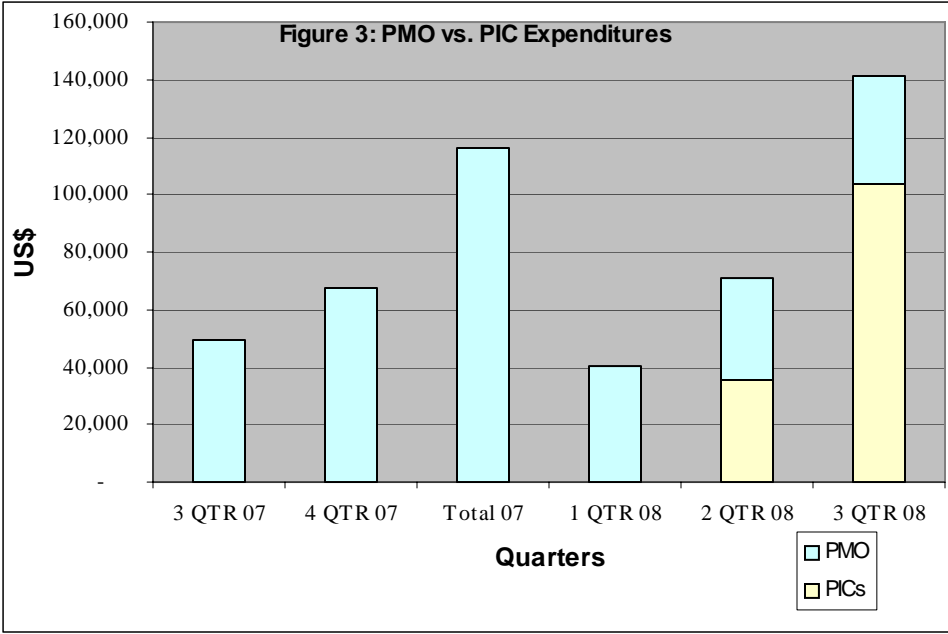
11. Recommendations for Future Action/Work Plan Quarter 4/2008

In order to keep the length of this report short, please See QTR 4 column of Annex 1.

12. Project Finance

The total budget for the quarter was USD 291,337. Total expenditures were USD 141,297 (or 48.5% of the budget) with USD 37,654 (27%) being PMO-related costs and USD103,643 (73%) 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 second quarter that expenditures are made on PIC in-country project activities and are therefore charged against each PIC's indicative allocation. These can be seen in Figures 4 and 5. The outlook for the fourth quarter 2008 is that delivery will slow down as countries approach the

end of the year including the festive season unless as a result of the MPR beginning of November 2008, some activities can be formulated quickly and implemented without delay.

The estimated total budget for the next quarter is US\$352,931 and 85% is for country activities while the rest is for the PMO. An advance of US\$ 202,891 is requested for the 4 QTR 08. With this advance, the drawdown on the PIGGAREP 2008 budget would be US\$560,586 out of a total budget of US\$1,119,700. Assuming a full spending of the total budget for 4 QTR, the spending for 2008 would only be 50% of the total approved budget. Total drawdown on the PIGGAREP resources since the beginning of the project to date is now standing at US\$721,748.

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

13. Report Prepared By: Solomone Fifita
Project Manager
17 October 2008

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

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

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.

The offer by Vergnet was reconfirmed at Rarotonga in August 2008 during the annual conference of the Pacific Power Association.

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 PAS for a topographical and geotechnical was prepared and endorsed by the PSC. The surveys has been conducted and a draft report will be available in early October.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
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 long term monitoring station 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	10,000	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	This is to fund formulation of a Biogas Implementation Framework, Policies that should govern the implementation of the 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 of 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 courses are offered by USP, TPAF, PSC and international institutions
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	10,000	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, Development Policies and Acts
	Sub-total Fiji			18,000	18,000	33,000	23,000	92,000	
<p>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.</p> <p>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 FID2 million. These are the co-financing activities in Fiji and include the following: Renewable Energy Database</p>									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
	<p>Renewable Energy Statistics</p> <p>Capacity Building</p> <p>Solar Home Systems (SHS) Programme</p> <p>Somosomo Hydro Project</p> <p>Nabouwalu Hybrid (Wind/Solar) Project</p> <p>Biogas Programme</p> <p>Wind Programme (Survey & Long term monitoring)</p> <p>Hydro Programme (Survey & Long term monitoring)</p> <p>Wave Programme (Survey & Long term monitoring)</p> <p>Solar Insolation Programme (Survey & Long term monitoring)</p> <p>Renewable Energy Standards</p> <p>Compilation of Hydro Potential Report (based on 500 sites already being surveyed)</p> <p>Hydro Detailed Designing (2 projects per year)</p> <p>RED Infrastructure Framework (Standard Operating Procedures)</p> <p>No further update on the approval of DOE's budget.</p>								
	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 drafted two PAS – one was for strengthening the Department of Energy's Capacity through a project-paid National Coordinator and a Renewable Energy Statistics Data Entry Clerk. The other was to strengthen the Department's renewable energy effort through merging of FJ-1, FJ-5 and FJ-6 above. The PMO provided comments on these two PAS and by the time of the PSC 1, they were yet to be finalized. Part of the reason for the delay was the need to finalise the Department of Energy's Business Plan for 2008.								
KI3	Technical visits to biofuel developments either in Vanuatu and Majuro or Philippines	Technical Awareness	KCMC, PUB, EPU		10,000			10,000	
KI4	Technical visits to PV-Grid developments in Tuvalu.	Technical Awareness	EPU, SEC & PUB	10,000				10,000	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.
KI5	Consultations on the National Energy Policy and drafting of an Action Plan	Policy	EPU, MELAD, MISA				7,000	7,000	Rupeni and Kireua and Richard conducted two days workshop (consultation with stakeholders on a proposed Energy Policy on 4 & 5 August
KI10	Refresher technical training following the EDF 8 OI electrification project.	Technical	SEC			10,000		10,000	
KI12	Feasibility study on PV-grid pilot project at SEC Headquarter.		SEC, EPU, PUB			9,000	9,000	18,000	
KI5	Training component related to the installation of the new RESCO Manager		SEC			17,000		17,000	
KI16	Migrating RESCO Manager to an open source		SEC		6,000	6,000	7,000	19,000	

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
	platform.								
KI22	Public awareness campaigns	Awareness	EPU, MELAD & media		500		500	1,000	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. The ProDoc is being revised and this project was need to be re-PAC/LPAC this depending on internal decision.

PIGGAREP

Seven PAS have been drafted for KI-11, 13, 14, 16, 17 and 23. This reflects a change in the timing for the implementation of Kiribati's activities. For instance KI-11, 13, 14, 17 and 23 were for later years but their PAS were drafted with the intention that they may be implemented this year.

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.

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	Institutional Awareness	Energy Efficiency Officer (Utilities) and schools	10,000	10,000	10,000	10,000	40,000	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 will provide 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 cover the activities in Nauru's 2008 Work Plan, a reprioritisation of Nauru's activities was made. The wind power feasibility study has now been advanced to begin in 2008. The PAS was drafted during the PM mission in early February. PAS will be submitted to the PSC 1.
- A 40 kWp grid connected PV system is to be installed at Nauru College. The PV system is to be maintained by the Utility, and monitored by the Energy Efficiency Officer. Total costs: 500,000 Euro. Tender launched. Contract to be awarded by end of April. installation by January 2009.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
PICP									
Nauru has signed the communiqué for the PICP. Proposals were developed and submitted. These were for improving water supply which would involve solar water pumps and solar powered computers for schools.									
EDF 10									
Nauru has signed the Financing Agreement for the EDF 10. The consultant doing the project identification study visited Nauru in February 2008.									
Taiwan									
Taiwan will provide 60 stand alone solar systems to Nauru. These are expected to be installed at the community leaders' houses.									
PIGGAREP									
Since it is most likely that REP-5 will cover the activities in Nauru's 2008 Work Plan, a reprioritisation of Nauru's activities was made. The wind power feasibility study has now been advanced to begin in 2008. The PAS was drafted during the PM mission in early February. PAS was endorsed by the PSC and the call for proposals have been completed and a consultant identified. Consultancy contract to be signed next quarter.									
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.									
NI4	Capacity Building, NPC/Private Sector/	Awareness	NPC	1,000	2,000	1,000	1,000	5,000	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.
NI6	Energy Coordinator / AFO	Institutional	NEAP	3,750	3,750	3,750	3,750	15,000	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									
<ul style="list-style-type: none"> Supply of solar water heaters 240 SWHs are to be supplied to Niue and sold to residents at a discount. To be eligible for the discount, residents must hand in their existing electric water heaters. Total costs: 600,000 Euro. Contractors selected. Contract to be signed by end of March									
<ul style="list-style-type: none"> 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. Call for tenders was launched during 3 QTR 08.									
A PAS was prepared for modelling the impacts of the renewable energy penetration into the NPC power network. PAS was endorsed by the PSC and the call for proposals launched.									
<ul style="list-style-type: none"> 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.									
PICP									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
Niue has signed the Communiqué but no proposals have been submitted.									
PIGGAREP									
No PAS has been drafted.									
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.									
PN1	Buakap Aidpost Solar PV System		ATCDI at PNG University of Technology			4,452		4,452	Have vaccine fridge to 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 Guinea Gold Collaboration on		PNGSEL				70,000	70,000	Will cover participation at the SIS Capacity Building Workshop in 2 QTR.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
	Geothermal Energy								
	Sub-total PNG			12,887	-	6,452	78,000	97,339	

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

Govt. of Italy and PIC Cooperation Programme – Garaio – Any update on these?

The communiqué has been signed and 8 proposals have 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 K6,000.00 (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
2. 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, Dynamometer plus accessories, Exhaust Gas Analyzer, Engine Performance Analyzer, Wear Particle Analyzer (Model 56), Oxygen Bomb Calorimeter and expendable supplies & services (including coconut oil).
3. 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.
4. Buapak 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.
5. 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.
7. 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 project proponent has been frustrated with the lack of communications on this project. Several emails have been sent to the Italians regarding the release of funds for this project. No replies received.

Sustainable Energy Ltd – Joseph pls provide a brief update, a short para each, on the progress with the co-financing activities below.

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. Our model will include the availability of Micro Finance Banking and communications, including an internet cafe.

PNGSEL is also implementing a trial 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. A small scale trial of biodiesel production for local vehicles will also be 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 our rural electrification programs as we 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 our 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.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
									<p>2. The other area of interest is in Photovoltaic. We have identified areas where Solar Powered Stations would be the only 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 our 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, we 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.</p> <p>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 Sinivit Gold mine.</p> <p>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.</p> <p>PIGGAREP assistance is required in the completion of the rehabilitation study.</p> <p>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.</p> <p>Assistance is required from PIGGAREP to carry out feasibility study and train local engineers to plan and design wind farms.</p> <p>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.</p> <p>Assistance could be co-funding of a feasibility study.</p> <p>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.</p> <p>Assistance could be co-funding of a feasibility study.</p> <p>PIGGAREP PAS have been developed for all the ACTDI activities for 2008. There was a rescheduling of PNGSEL activities such that the Mabudawan Solar Power Station Design and Training Project (PN 9) has now been advanced to be implemented in 2008.</p> <p>PNG SEL will participate in the SIS Capacity Building Workshop on Renewable Energy Technology Applications that will be held at Port Vila, Vanuatu on 21 – 25 April 2008.</p>
SA1	2.3.1 (3.1.3) - Capacity Building training needs on RETs (ADB)	Technical	Energy Division, energy stakeholders, EPC, Private sector, MWCSO, SWA,		1,000			1,000	
SA2	2.3.2 (3.1.4) - Training programme on RETs (ADB)	Technical	Energy Division, PSC, Energy Stakeholders, SWA, MWCSO, MNREM, RDIS		1,000			1,000	

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
SA4	2.4.1 Coordinate the development of an RE programme with the RDIS	Technical	RDIS, Energy Division, MNREM, EPC, MAF, SWA	1,000				1,000	
SA5	2.2.4 Establish the Designated National Authority (DNA) for CDM activities	Technical	Energy Division, MNREM, MWTI, MWCSO, EPC, SUNGO, consultants		2,500			2,500	
SA6	2.2.5 Build capacity in CDM process and implementation	Technical	Energy Division, MNREM, MWTI, MWCSO, EPC, SUNGO, consultants			5,000		5,000	
SA7	2.2.7 Establish a Clean Energy Fund	Technical	Energy Division, MNREM, MWTI, MWCSO, EPC, SUNGO, consultants		2,500			2,500	
SA8	2.2.8 Build capacity in Clean Energy Fund operational processes	Technical	Energy Division, MNREM, MWTI, MWCSO, 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 source identified in 2.1.1	Finance	Energy Division, RDIS, MNREM, MAF, MWCSO, NUS, EPC, SWA, consultants			5,050		5,050	
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, MWCSO, NUS, EPC, SWA, consultants				7,100	7,100	

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
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, MWCSO, 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, MWCSO			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	
	Sub-total Samoa			33,325	18,000	27,075	20,100	98,500	

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

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 performance; (b) establish effective regulation of the power sector; (c) establish a designated national authority; and (d) establish a clean energy fund. The investment components include two core and 16 candidate investment subprojects, and a project management component which will be implemented from 2008 to 2015. Component A comprises the Hospital feeder upgrading project-Stage 1 which forms part of EPC's underground cabling program for the transmission network to provide protection from cyclones. Component B comprises the supply and installation of pre-payment meters for all consumers by 2012. Component C comprises five generation and eleven transmission candidate subprojects identified under EPC's investment plan. The proposed ADF IX grant of \$18.1 million to the Government will ease the macroeconomic impact of the large financing requirements for the power sector expansion project. A loan in the amount of \$23.9 million is being provided in conjunction with this grant.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
<p>A TA to implement Samoa's National Energy Policy. The TA will consist of a:</p> <p><u>Component 1- Regulatory Reform in the Power Sector</u> Component 1 will support the Government's overarching goal for the power sector to provide sustainable and reliable electricity services to all consumers at affordable prices. Component 1 will help establish the regulatory requirements for the power sector, including the drafting of a new electricity act to govern the sector and amendments to the EPC Act (1980), and establishment of a regulatory body and its roles and functions.</p> <p><u>Component 2 - Establishment of a Clean Energy Fund</u> Component 2 will contribute to the Government's vision to enhance the quality of life for all Samoans through sustainable energy development. The CEF will promote and facilitate development of clean energy of initiatives for clean energy, environmental improvement, and climate change adaptation.</p> <p><u>Component 3 - Establishment of a Designated National Authority</u> Component 3 will contribute to the Government's vision to enhance the quality of life for all Samoans through sustainable energy development.</p> <p><u>Component 4 - Resident Financial Management Advisor to the Electric Power Corporation</u> The financing needs for the power sector and EPC to meet growing electricity demand places substantial requirements on EPC to improve internal financial management controls, accounting and reporting. As part of EPC's forward looking investment plan and need to improve timeliness of tariff adjustments, EPC will commence preparing 5-year financial projections. There is an opportunity to improve the existing tariff structure and introduce bulk power purchase agreements with large consumers to provide incentives for energy conservation and demand-side managements.</p> <p>The Cluster TA includes the following components: <u>Component 1- Regulatory Reform in the Power Sector.</u> The objectives of Component 1 are to promote good governance, stakeholder participation, and a conducive environment for cost-effective private sector participation and investments.</p> <p><u>Component 2 - Establishment of a Clean Energy Fund.</u> Component 2 will provide assistance to the Government to establish and strengthen the institutional capacity and technical capability of a clean energy fund (CEF) in Samoa. This will complement the activities under the proposed Power Sector Expansion Project and the proposed Component 3 for the Establishment of a Designated National Authority for utilizing the carbon development mechanism (CDM).</p> <p><u>Component 3 - Establishment of a Designated National Authority</u> Component 3 will provide assistance to the Government to establish and strengthen the institutional capacity and technical capability of a designated national authority (DNA) in Samoa to promote clean, indigenous and renewable energy through the use of CDM.</p> <p><u>Component 4 - Resident Financial Management Advisor to the Electric Power Corporation</u> Component 4 will support the Government's overarching goal for the power sector to provide sustainable and reliable electricity services to all consumers at affordable prices by assisting EPC to improve cost effectiveness of power supply. It will support EPC to improve cost-effectiveness of power supply and prepare submissions for timely tariff adjustments to enable the provision of reliable electricity services to all consumers at affordable prices. It will also support energy conservation and demand-side management through the preparation of a new tariff structure and bulk power purchase agreements.</p> <p>A project management unit has been set up at the EPC. The implementation of the TA regarding the establishment of a Clean Energy Fund and a DNA for CDM project has commenced.</p> <p>PICP MNRE is coordinating this programme, which will be delivered through the IUCN Oceania office in Suva. A USD 600,000 proposal has been developed and submitted. Project is focussing on reducing GHG emission in the transport sector. This has been approved and MNRE reviewed its proposals with the hope of securing more resources.</p> <p>IUCN has identified a project manager for the programme. IUCN will manage the projects activities in Palau, Tonga, Samoa and Vanuatu and possibly RMI.</p> <p>Joint PIEPSAP, UNDP and SOPAC Energy Projects – any update Sili'a. The PIEPSAP Project (2004-2008) has assisted Samoa with the following activities: Draft policy statements and strategies produced in September 2005 including renewable energy targets National Energy Policy endorsed by Samoa Cabinet in June 2007 GIS/MIS consultancy for power utility incepted in December 2006 with GIS/MIS system fully operational by 2nd quarter 2007 Cost-shared with UNDP TRAC the Preparatory Phase for the Samoa PV Rural Electrification Programme.</p> <p>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 the suggestion of the following activities to be picked up by PIGGAREP.</p> <p>PIGGAREP's follow-up support to the PIEPSAP's activities will focus on the following activities:</p> <ul style="list-style-type: none"> o 1.Co-operation in developing strategic energy action plan o 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 									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
	o	3. Support for EPC wind energy development including comprehensive feasibility studies (including geotechnical analysis) and identification of funding sources, possibly CDM							
		<p>Furthermore, UNDP, SOPAC, RISOE and the government of Samoa is working on a Upolu wind resource assessment project (US\$32,000). The project will select, install, and operate two (2) wind monitoring stations and after one year 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.</p> <p>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.</p> <p>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.</p> <p>Samoa, UNDP and SOPAC have been working on a CocoGen project, looking at th 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 following version 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.</p>							
		<p>PIGGAREP</p> <p>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. A meeting to discussion a community consultation process for hydro development is planned for 2nd April.</p>							
		<p>Two PAS on hydro and wind resource monitoring have been drafted and reviewed</p>							
SI3	Economic feasibility study of production/use of coconut oil /bio-fuel as fossil fuel substitute in power generation in rural areas.	Study report compiled and forwarded for actioning	MME, Italian Gov't	4,000	4,000			8,000	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		7,500	To kick-start the Rori Mini-hydro scheme
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

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
SI8	RE surveys and assessments for hydro, wind and solar	Survey Reports	MME,SIEA,SOPAC			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, Tulagi and Helena Goldie Hospitals	Study Report presented for proper action	MME, SIEA, Private		2,000	2,000	1,000	5,000	
SI20	Micro Biofuel Enterprise Development	Micro Biofuel development structure	Frelin Enterprise & Fred Conning		2,000	2,000	2,415	6,415	

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
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	Demonstration	Choice Electrics, Australia, SITAFE		2,500	2,500	2,500	7,500	
SI24	Technical Support to the SITAFE Renewable energy library centre	Technical/resources materials	Australia (OTEN -NSW TAFE)		2,000			2,000	
SI26	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.

SIVCE's RE Development Activities – any update from SIVCE.

PIGGAREP

PASes have been drafted and commented on by have not been revised and updated.

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

TO1	Joint annual committee meetings	Institutional	EPU, HSES & NFSES	6,000				6,000	The joint annual meetings should then lead to the establishment of the National Steering
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Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
									Committee
TO2	Technical evaluation of the solar installations	Technical	EPU, HSES & NFSES	3,000				3,000	Ha'apai's, installed in 2002, is to be evaluated next year while Niua's, installed in 2006, will be in Year 2 and both on Year 5.
TO3	Training of village water committees and island technicians	Awareness	EPU			6,000		6,000	Training is to be part of the JICA solar water pumping project for Niuafoou. Also include training for NFF and Ha'apai technicians based on the outcome of the evaluations.
TO09	Training on RE for AMREC	Awareness	EPU & AMREC		5,000			15,000	To cover solar, wind 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 Legislation Review	Policy	EPU & Crown Law & Consultant				20,000	20,000	A follow-up to the RE Bill. To review existing energy-related legislations and whether they can all be merged into an Energy Bill.
TO12	Wind resources assessments	Technical	EPU	2,500	2,500	2,500	2,500	10,000	To sites will be selected based on the Vergnet wind atlas project which will be completed by Sept 07.
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	EPU 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	6,000	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									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
									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.
									Tonga's activities, as well as Samoa's and Vanuatu's will be managed through the IUCN Oceania office in Suva. A project manager has been identified.
									Italy has approved the funding of a rehabilitation of the Mango and Mo'unga'one PV projects. A PAS was endorsed by the PSC for the conduct of the feasibility study. The field work for the study was conducted in September.
									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 QTR 1.
									PIGGAREP 4 PAS has been drafted. In the process, two activities (TO 1 & TO 2) have been merged and finalised for PSC 1.
									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.
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	
<p>General Progress: The general progress has been very satisfactory with both the co-financing and the PIGGAREP activities.</p> <p>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.</p> <p>The Alofa Tuvalu's Amatuku Project – any update on their activities</p>									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
PICP									
Communiqué has been signed and a proposal was developed and submitted. The Tuvalu Photovoltaic Electricity Network Integration Project (TPVENI) is for USD800,000 V systems is expected to bring about a reduction of 184 tonnes of carbon dioxide (CO2).									
TPVENI is designed to deliver the following:									
<ul style="list-style-type: none"> • New Energy Office structure • Energy Coordinating Committee (ECC) established and terms of reference developed. • Additional resources secured for the implementation of the Tuvalu • 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 call for proposals to do a scoping study of the TPVENI was launched during the 3 QTR 08.									
PIGGAREP Activities									
2 PAS has been drafted. One has been finalized and implemented during the quarter as part of the commissioning of the PV grid-connected installation.									
Completed by the study of how best to establish the RE and EE Unit at the Tuvalu Electricity Corporation.									
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.									
VU5	Vanuatu Hydropower Resource Mapping	Market	Energy Unit, Consultant			5,000	5,000	10,000	
VU6	Feasibility Study of the Tasiriki River hydro resource potential	Technical	EU			10,000	10,000	20,000	
VII1	Review of the Rural Electrification Policy	Policy	Energy Unit, NACCC, SOPAC		6,000	7,000	7,000	20,000	
VU12	Renewable Energy and Energy Efficiency Programmes		Energy Unit, SOPAC, Unelco			2,000		2,000	
VU14	Review of the 2002 Talise Mini Hydro Feasibility Study		Energy Unit, Consultant		9,000	9,000		18,000	
VU16	Study of the viability of changing fishery freezers to run on RE		Fisheries, Consultant			10,000		10,000	
VU17	Community Awareness		VANREPA, local Theatre Group		1,500	1,500		3,000	
VU18	Identification & Promotion of income generation		VANREPA, Peace Corps				3,000	3,000	

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
	activities								
	Sub-total Vanuatu			0	16,500	44,500	25,000	86,000	

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 – Ben Update pls

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, its 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 9th European Development Fund. 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 Unit-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 energy 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 hospital and 1 dispensary, in the villages of Saratamata, Lolowai and Longana in East Ambae. This will increase the rate of access to energy 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 value-added 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 activities to be funded under this programme:

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters				Year 1 Total	Comments
				1	2	3	4		
	<ul style="list-style-type: none"> o 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. o 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 o 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). <p>Italy has approved the funding of a hydropower generator at Talise. PIGGAREP is to fund the conduct of the feasibility study. Project has been stalled as the discussions with Vanuatu have focussed only on the remuneration package for a PIGGAREP and IUCN local project coordinator.</p> <p>AusAID-funded Energy Advisor The Advisor has started on this position.</p>								
Grand Total for Year 1 Country Activities:				177,812	178,000	237,777	299,665	893,254	
PMO Costs									
Total for PMO				53,060	66,560	53,560	53,266	226,446	
<p>Progress meetings were held with UNDP Samoa on 17 July, 25 July, 4 August, 22 August and 5 September.</p> <p>Consultations with the JICA office in Apia about JICA's planned on activities in Tuvalu. Provided the Italian proposal and PIGGAREP YEAR 1 work plan.</p> <p>The PIGGAREP web-page became fully functional during the quarter and will be updated regularly.</p> <p>The PM participated at the annual conference of the Pacific Power Association, at Rarotonga, Cook Is.</p> <p>In-country assistance was provided to Niue and as a result a PAS was developed and the call for proposals is currently underway. The PM met up with the coordinator of REP-5 in Niue.</p> <p>Assisted the Samoa Ministry of Natural Resources and Environment with its Technology Needs Assessment, which is part of the preparations of its Second National Communication.</p> <p>Preliminary the Project Manager's planned missions / movements for the next quarter are as follows:</p> <ul style="list-style-type: none"> i) UNFCCC Technology Transfer Workshop, Vienna: 29 Sept – 2 Oct ii) Annual Leave, 15-25 November 2008 									
GRAND TOTAL FOR 2008				230,872	244,560	291,337	352,931	1,119,700	

Financial Report

FR01



(a) Designated Institution:	Secretariat of the Pacific Regional Environmental Programme (SPREP)			
(b) Award Title	: 'Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP)			
Award ID				
(c) For the period:	01 July 2008 to 30 September 2008			
(d) Currency:	US Dollars			
	(I)	(II)		(III)
	item	Chart of Account		Amount
(f) Opening Balance:				173,655
(g) Advance Received:				117,682
(h) Available Funds				291,337
Detailed Expenditures:				
Project ID:				
1. TECHNICAL CAPACITY BUILDING & TECHNICAL SUPPORT				
1.1 - Provide support to Renewable Energy resource assessments and demonstration projects				
International Personnel	71200	62000	GEF Trustees	44,320
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	18,480
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	40,843
Local consultants	71300	62000	GEF Trustees	
Contractual Services - Individuals	71400	62000	GEF Trustees	
Travel	71600	62000	GEF Trustees	
4. FINANCING SUPPORT				
4.1 Provide support to establish and enhance existing financing mechanisms				
International Personnel	71200	62000	GEF Trustees	
Local consultants	71300	62000	GEF Trustees	
Contractual Services - Individuals	71400	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				
International Personnel	71200	62000	GEF Trustees	
Local consultants	71300	62000	GEF Trustees	
Contractual Services - Individuals	71400	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	71400	62000	GEF Trustees	
Travel	71600	62000	GEF Trustees	
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	23,172
Travel	71600	62000	GEF Trustees	9,322
7.3 Administrative Finance Officer				

Financial Report

FR01



(a) Designated Institution:	Secretariat of the Pacific Regional Environmental Programme (SPREP)			
(b) Award Title:	: <u>Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP)</u>			
Award ID:				
(c) For the period:	01 July 2008 to 30 September 2008			
(d) Currency:	US Dollars			
	(I)	(II)		(III)
	Item	Chart of Account		Amount
Contractual Services - Individuals	71400	62000	GEF Trustees	
7.4 SPREP Project Team Miscellaneous				
General Operating Expenses	7200	62000	GEF Trustees	5,160
7.5 Inception Meeting				
Travel	71600	62000	GEF Trustees	
(i) Total Expenditures				141,297
(j) Closing Balance:				150,040
(k) Outstanding Obligations:				-
(l) Planned Expenditures:				352,931
(m) Total Requirements:				352,931
(n) Advance Requested:				202,891

Designated institution approval/signature:

Name & Title: Asterio Takesy, Director, SPREP

Signature :

Date :

15/10/08

Country office approval/signature:

Name & Title: Naheed Haque, Resident Representative, UNDP

Signature: _____

Date: _____

'Pacific islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP)
Planned Expenditure for Quarter 4 - 2008

1. Technical Capacity Building & Technical Support	41,611
2. Market Development	41,611
3. Institutional Strengthening	41,611
4. Financing Support	41,611
5. Policy and Regulatory Support	41,611
6. Information and Awareness Enhancement	41,611
7. Efficient and Effective Project Management (PMO Costs)	103,266
Total Planned Expenditure for Quarter 4	<hr/> 352,931
Balance of funds available	(150,040)
Advance required	<hr/> 202,891 <hr/>