



REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: MEDIUM-SIZE PROJECT
THE GEF TRUST FUND

Submission Date: 10 November 2010

Re-submission Date:

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 4131

GEF AGENCY PROJECT ID: 4358

COUNTRY(IES): Fiji

PROJECT TITLE: Fiji Renewable Energy Power Project (FREPP)

GEF AGENCY(IES): United Nations Development Programme (UNDP)

OTHER EXECUTING PARTNERS: In Fiji – Fiji Department of Energy (FDoE)

GEF FOCAL AREA (S): Climate Change

GEF-4 STRATEGIC PROGRAM(S): SP-3: Promoting Market Approaches for Renewable Energy

NAME OF PARENT PROGRAM/UMBRELLA PROJECT: N.A.

Expected Calendar	
Milestones	Dates
CEO Approval	Dec 2010
GEF Agency Approval	Jan 2011
Implementation Start	Apr 2011
Mid-term Review (if planned)	Oct 2012
Implementation Completion	Mar 2014

A. PROJECT FRAMEWORK (See Details in Part II, Sec A)

Project Objective: Removal of major barriers to the widespread and cost-effective use of grid-based renewable energy supply via commercially viable renewable energy technologies.								
Project Components	Inv, TA, STA	Expected Outcomes	Expected Outputs	Indicative GEF Financing*		Indicative Co-financing*		Total (\$)
				(\$)	%	(\$)	%	
1. Energy Policy & Regulatory Frameworks	TA	<ul style="list-style-type: none"> Facilitation of investments on energy projects, particularly on RE-based power generation 	<ul style="list-style-type: none"> Enacted & enforced Fiji Energy Act Enforced Implementing Rules and Regulations (IRRs) for the Energy Act Government agencies with enhanced regulatory and institutional capacity on energy development, in general, and RE development, in particular 	150,000	75	50,000	25	200,000
2. RE Resource Assessments	TA	<ul style="list-style-type: none"> Technical feasibility of harnessing RE resources are ascertained and made widely known 	<ul style="list-style-type: none"> Operational centralized energy database system Completed and published RE resource assessments Completed feasibility assessments of RE investments 	150,000	37	250,000	63	400,000
3. RE-based Power Generation Demonstration	TA	<ul style="list-style-type: none"> Markets for specific renewable energy technologies are supported 	<ul style="list-style-type: none"> Designed and implemented RE-based power generation demonstration Standard Power Purchase Agreement (PPA) for IPPs Completed Investment 	427,500	22	1,553,673	78	1,981,173

			Promotion Package • Completed assessment and developed RE incentives schemes					
4. Institutional Strengthening	TA	• Renewable Energy developments integrated into National Energy Plan towards 100% Electrification of Fiji	• Completed training program on integrated energy planning (IEP) and administrative energy policy for government personnel • Completed and approved National Electrification Master Plan	150,000	60	100,000	40	250,000
5. Project Management				97,500	49	100,000	51	197,500
Total Project Costs				975,000	32	2,053,673	68	3,028,673

*List the \$ by project components. The percentage is the share of GEF and Co-financing respectively to the total amount for the component.

**TA = Technical Assistance; STA = Scientific & technical analysis.

B. FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

Source	Project Preparation*	Project	Agency Fee	Total
GEF	25,000	975,000	100,000	1,100,000
Co-financing	5,000	1,500,000	-	1,505,000
Total	30,000	2,475,000	100,000	2,605,000

*Please include the previously approved PDFs and PPG, if any. Indicate the amount already approved as footnote here and if the GEF funding is from GEF-3. Provide the status of implementation and use of fund for the project preparation grant in Annex D.

C. SOURCES OF CONFIRMED CO-FINANCING, INCLUDING co-financing for project preparation for both the PDFs and PPG

Sources of Co-financing	Type of Co-financing	Amount	Percentage
Government of Fiji	Cash	900,000	44
Un- known	In-kind	653,673	32
IVITI Renewable	Cash	500,000	24
Total co-financing		2,053,673	100

*Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

D. GEF RESOURCES REQUESTED BY FOCAL AREA(S), AGENCY(IES) OR COUNTRY(IES) – N.A.

E. PROJECT MANAGEMENT BUDGET/COST

Cost Items	person-wks	GEF (\$)	Other sources (\$)	Project total (\$)
Local consultants (Proj. Manager)*	156	60,000	-	60,000
Local support staff (Project Admin/Finance Assistant)*	156	24,500	-	24,500
International consultants*	-	-	-	-
Office facilities, equipment, vehicles and communications**		3,000	40,000	43,000
PAC Meetings, inception, workshops		1,000	2,000	3,000
Travel		4,000	5,000	9,000
Miscellaneous		5,000	5,000	10,000
Total	312	97,500	52,000	149,500

***Justification for the GEF-funded PM expenses:** The local consultants refer to the PMO technical staff members mainly the National Project Manager and local support staff (Administrative and Finance Officer). Annual financial audit will be through professional (auditing) services that will be engaged by the PMO. The non-personnel expenses include office facilities, equipment, vehicles and communications refer to the office renting, supply, printing, translation, materials and communication. Meeting expenses are mainly for the project inception and regular PAC meetings, and stakeholder consultation meetings. Travel expenses are for the annual M&E site visit and local transport.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

<i>Component</i>	<i>Total person-wks</i>	<i>GEF (\$)</i>	<i>Other sources (\$)</i>	<i>Project total (\$)</i>
<i>Personnel government</i>	120	0	48,000	48,000
<i>Local consultants*</i>	120	157,000	0	157,000
<i>International consultants*</i>	60	230,000	0	230,000
Total	240	387,000	48,000	435,000

*Provide detailed information regarding the consultants in Annex C.

G. DESCRIBE THE BUDGETED M&E PLAN:

The monitoring and evaluation (M&E) plan is detailed in Section VI of the UNDP Project Document. Indicative monitoring and evaluation work plan and corresponding budget are laid down in the table below.

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> Project Manager UNDP CO, UNDP GEF 	10,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> Oversight by Project Manager Project team 	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> Project manager and team UNDP CO UNDP GEF RTA UNDP EEG 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> Project manager and team 	None	Quarterly
Mid-term Evaluation	<ul style="list-style-type: none"> Project manager and team UNDP CO UNDP GEF RCU External Consultants 	25,000	At the mid-point of project implementation.
Final Evaluation	<ul style="list-style-type: none"> Project manager and team, UNDP CO UNDP GEF RCU External Consultants 	25,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> Project manager and team UNDP CO 	0	At least three months before the end of the project

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Audit	<ul style="list-style-type: none"> UNDP CO Project manager and team 	9,000	Yearly
Visits to field sites	<ul style="list-style-type: none"> UNDP CO UNDP RCU (as appropriate) Government representatives 	Paid from IA fees and operational budget	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US\$ 69,000 (+/- 5% of total budget)	

PART II: PROJECT JUSTIFICATION

A. DESCRIBE THE PROJECT RATIONALE AND THE EXPECTED MEASURABLE GLOBAL ENVIRONMENTAL BENEFITS:

In 2006, the Government of Fiji at Cabinet level endorsed its first ever National Energy Policy (NEP). The energy policy seeks to address the major constraints of country's energy sector in ensuring the sustainable supply of electricity to support social and economic development. Among these are the following:

Absence of an integrated energy plan that is in line with a strong and consistent national energy policy – An integrated energy plan that is not susceptible to changes in government administration is lacking in the country. Such situation creates an environment of uncertainty for energy consumers, as well as public and private sector investors. Along with the absence of an integrated energy plan is the uncertain medium and long term investment environment in the country. Among the barriers to the development and utilization of the country's renewable energy resources and the development of large scale renewable energy programs is the lack of comprehensive energy legislation and regulations. Clear and consistent energy policies including the enactment and enforcement of an Energy Act (including the associated implementing rules and regulations) would encourage increased use of, and investment in, RE-based power generation in the country.

Fiji is highly dependent on imported petroleum products - Concerning imported petroleum products; Fiji continues to be highly dependent on such for power generation, transportation, industrial and household uses. For the last three years, imports of petroleum products have been hovering around the one billion Fiji Dollar mark, e.g. in 2008 the total value of fuel imports was about FJ\$1.3 billion or 37% of the value of total imports. For a small economy like Fiji, the effects of such expenditures can be devastating and also means reduced budgets for critical social concerns such as education and health; and,

Alternative indigenous energy resources are not being fully developed and utilized - It is stated in the NEP that "...indigenous energy sources have the potential to meet our energy needs there are many barriers to the immediate transition of the energy mix to favor these sources". Currently, bulk of the electricity generated in the major islands of the country is from hydro resources. It once reached 85% in 1999 but had since been declining as a result of the increasing demand and to an extent, limited rainfall within water catchment areas. Current developments in this area have been more reactive rather than planned. The monitoring of the extent of the hydro resource is presently carried out only if there's a demand like when a prospective energy project developer is interested in developing a hydroelectricity power project. As to the utilization of the wind energy resource, at present, electricity production from wind accounts only for about 1% of the electricity mix. To ensure energy security, the contribution from wind, hydro and biomass resources should be increased. However there is insufficient knowledge about Fiji's large-scale (and mini) hydroelectric resource, with little long-term monitoring in recent years and relatively poor knowledge about the geothermal, wind energy and biomass resource.

Additional issues include financial constraints, linked to the limited government funding for energy projects. Even the private power developers have financing constraints, and they too are also dependent on external investments for their energy projects in the country. The lack of capacity (manpower and technical) in the Fiji Department of Energy (FDOE), which is the Government's focal point for the energy sector, energy policy development and oversight of energy sector operations, is also something that have to be contend with in order to realize the sustainable development and utilization of the country's RE resources, and the effective application of RE technologies for electricity and non-electricity purposes.

The proposed project consists of 4 main components: (1) Energy Policy & Regulatory Frameworks; (2) RE Resource Assessments and RE-based Project Assessments; (3) RE-based Power Generation Demonstrations; and, (4) RE Institutional Strengthening.

Component 1: Energy Policy & Regulatory Frameworks - Through this component, the Fiji Government endeavors to put in place an overarching legal/regulatory framework on energy, based on a clear and consistent energy policy. This will be in the form of a formulated Energy Act that will be enacted and enforced through a set of clearly defined implementing rules and regulations that will guide developments in the energy sector including in the area of renewable energy development and utilization. This component aims to address the policy and regulatory barriers that hinders the wide-scale development and utilization of Fiji's indigenous RE resources. The outcome from the expected outputs that will be delivered under this component is the facilitation of investments on energy projects, particularly on RE-based power generation. To realize this outcome, the activities that will comprise this component will deliver the following tangible outputs: (1) The Fiji Energy Act; (2) Implementing Rules and Regulations for the Fiji Energy Act; and, (3) Government agencies with enhanced regulatory and institutional capacity on energy development, in general, and RE development in particular.

Component 2: RE Resource and RE-based Project Assessments - This component of the FREPP will address the technical and information barriers pertaining to the availability and technical feasibility of harnessing the country's RE resources, particularly mini/micro hydro, wind, geothermal, and biomass. This will be through the delivery of the following outputs: (1) Established centralized clearing-house mechanism for repository of RE data; (2) Completed and published RE resource assessment results; and, (3) Completed feasibility assessments of RE investments. The outcome from this project component is more energy projects on the utilization of confirmed viable RE resources are planned and implemented. The expected outputs that will help realize this outcome are as follows: (1) Centralized Clearing House Mechanism; (2) Completed and published RE resource assessments; and, (3) Completed feasibility assessments renewable energy investments.

Component 3: RE-based Power Generation Demonstrations - This project component is intended as an attempt to contribute to re-establishment of the RE market in Fiji. Previous solar energy projects of the FDOE in the early part of this decade have spurred growth in the application of RE technologies (RET) in the country, particularly solar home systems. Presently, some efforts are being made on significant RET applications projects in the country. The envisioned approach to achieve this is to showcase strategically important RE-based power generation applications with combined co-financing from government and private sector (particularly the independent power producers). The demonstration is not meant only for showing the applied RE technology in the operation of an installed on-grid RE-based power generation facility, but also the entire aspect of planning, design, engineering, financing, installation, and management arrangements of the installed facility and their support systems. There will be 2 demonstrations that will be showcased under this component of the project: (a) Large-scale on-grid waste-to-energy power generation; and, (2) Small-scale mini-grid biofuel-based power generation. From this approach, the expected outcome from this project component is a revitalized RE market in Fiji. Hence, the expected outputs from this component that will contribute to the realization of the expected outcome are: (1) Completed RE-based power generation demonstration projects; (2) Standard power purchase agreement (PPA) template/format for IPPs; (3) Completed RE investment promotion package; and, (4) Completed assessment of, and developed RE incentives schemes.

Component 4: RE Institutional Strengthening - This component addresses the need to further enhance the capacity of the FDOE and the energy sector in integrated energy planning. A particular focus of this is the preparation of a definitive master plan for the electrification of the country. Such plan is meant to be an environmentally friendly, sustainable and least cost power expansion plan for the country covering both the provision of increased access by people in the present un-electrified areas to grid and mini-grid based power, as well as addressing the increased demand for power from already electrified areas (among others to ensure that power developments keep pace with population growth). The outcome from this project component is the integration of RE development and utilization in the national energy planning with a view of 100% electrification of the country. This outcome will be realized through the delivery of the following outputs: (1) Completed training program on integrated energy planning (IEP) and administrative energy policy for government personnel; and (2) National Electrification Master Plan.

The FREPP was designed with a combination of upstream and downstream interventions that include creating an enabling environment for the involvement of the private sector and strategically chosen demonstrations, building on, and enhancing the work of others, coordination and collaboration with relevant national and regional initiatives and partners including proactive sharing of information, county-led project preparation and implementation, sustainable and least cost power sector expansion, and focus on mature RE technologies that are proven in Fiji's context. It is anticipated that investments that will be facilitated and/or influenced through the envisioned barrier removal activities of this project, as well as the support provided to strategically important renewable energy demonstration projects will result in global CO₂ emission reductions through the displacement of petroleum products used for power generation. Based on a trend analysis of the historical CO₂ emissions from the power sector in Fiji, the estimated potential annual CO₂ emission reduction from the utilization of RE resources for power generation is about 100 ktons (2010-2025)¹. The FREPP will facilitate the creation of an alternative scenario where the overall percentage contribution of renewable energy to the power generation mix of the country is 90%. It is estimated that for the bio-fuel and waste-to-energy demonstration projects, the combined annual direct CO₂ emission reductions is around 55.5 ktons. During the project preparation stage (i.e., PPG Exercise), the estimated total CO₂ emissions reduction attributed to the proposed project (direct, direct post-project and indirect) was reviewed and confirmed and the results are presented in Annex C of the Project Document. Concerning national level benefits, preliminarily, the expectations are the following: (1) Facilitation of investments on energy projects, particularly on RE-based power generation; (2) Technical feasibility of harnessing RE resources are ascertained and made widely known; (3) Supporting markets for specific renewable energy technologies and (4) Renewable energy developments integrated into National Energy Plan towards 90% Electrification of Fiji.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL PRIORITIES/PLANS:

The Government of Fiji ratified the United Nations Framework Convention on Climate Change (UNFCCC) on February 25, 1993. As a Party to the UNFCCC, Fiji has assumed certain commitments and obligations to contribute to the ultimate objective of the UNFCCC, which is to achieve the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. Although Fiji has stepped up its efforts to mitigate climate change through adopting RETs that would reduce GHG emissions maximizing the full benefits in order to reduce fuel imports is still a challenge.

The FREPP is in line with the overall plan of the Government of Fiji through its “Roadmap for Democracy and Sustainable Socio-Economic Development 2009 – 2014”. Furthermore, the FREPP is consistent with the priorities outlined in National Energy Policy (NEP) that has the vision of ‘*A sustainable energy sector for Fiji*’ and a mission ‘*To provide an enabling environment for a sustainable energy sector*’. The implementation of the NEP began in 2007 and is due to be reviewed in 2011. The Strategic Action Plan includes activities that cover 5-year period (2007-2011) which are reviewed annually. There are four key strategic areas in the NEP all of which are of relevance for this proposed project: (1) National energy planning with the strategic objective to strengthen the capacity for energy planning through appropriate policy, regulatory and implementation frameworks and effective and efficient management; (2) Energy

¹ The forecast is based on a trend analysis of historical CO₂ emissions data for Fiji from the United Nations Statistics Division – Common Database (http://unstats.un.org/unsd/cdb/cdb_dict_xrxx.asp?def_code=15) and the UNEP-Ozone Secretariat on United Nations Statistics Division Website

security with the strategic objective to enhance energy security through greater participation and collaboration within the industry; (3) Power sector with the strategic objective to increase access to affordable and reliable electricity services; and (4) renewable energy with the strategic objective of research, promotion and utilization of renewable energy applications. Concerning national energy planning, the relevant policies includes: strengthening the capacity of DOE to plan, formulation, implementation and management of the energy policy and other energy related policies and regulations; ensuring appropriate policy and regulatory frameworks for the provision of energy services and strengthening coordination and consultation with other sectors and the external environment on energy developments. Concerning energy security, the relevant policies includes: promote the development of indigenous energy sources such as hydropower, geothermal, solar, wind and biomass and strengthen energy security and improve energy supply mix for the country². With regard to the power sector the policy is to ensure the demand for reliable and affordable electricity is adequately met. Finally concerning renewable energy the policy is as to promote the use of renewable energy resources in the country. Moreover environmental compatibility is one of six cross-cutting areas mentioned in the NEP. Specifically the following is mentioned: ‘There are increasingly detrimental economic and environment impacts of energy use, particularly from fossil fuels. In recognizing the environmental effects of energy initiatives, it is intended that all energy initiatives will pay serious attention to environmental issues and in particular the impact of energy projects on land, water and air. Any proposed energy development will include environmental impact assessment. By incorporating the principle of environmental compatibility into energy sector planning, the negative environmental impacts can be lessened’.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH [GEF STRATEGIES](#) AND STRATEGIC PROGRAMS:

This proposed project is in line with the GEF-4 the Strategic Program 3 on promoting market approaches for the supply of renewable electricity in utility scale grid-based power systems; and Strategic Program 4, on promoting sustainable energy production from biomass and modern uses of biomass. The proposed project will focus on the removal of barriers (policy/regulatory, market, finance, and technical) to the wide-scale use of RE resources for grid-connected power generation in Fiji. In addition, the project will address barriers to the use of waste-to-energy resources for the production of on-grid or off-grid electricity. It involves activities that will investigate suitability and sustainability of producing bio-fuels to substitute imported petroleum products, ensuring that biomass production, conversion and energy use is sustainable.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

The Government of Fiji has taken various steps in the past and present to address the long-term effects of high dependence in petroleum fuels and environmental problems in the country. Significant legal and regulatory frameworks and policies have so far been issued and in the context of climate change mitigation, a recent partnership was made with the Government of Japan to cooperate on the reduction of the growth of fossil fuel utilization. Fiji is currently participating in two on-going regional renewable energy projects supported by the GEF. These are the: (1) GEF/WB Sustainable Energy Financing Project (SEFP)³; and; (2) GEF/SPREP/UNDP Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP)⁴. FREPP will complement these two projects, as well as past, on-going and planned national and regional interventions on RE development and utilization to increase the project impact, and avoid duplication of efforts. Specifically, the following coordination mechanisms will be utilized:

² As part of its mission statement the government-owned power utility – Fiji Electricity Authority (FEA) has a target of generating 90% of its energy through renewable energy resources by 2011. In 2008, FEA generated 68% of the total electricity requirements using own hydro and wind power generation and buying biomass generated power from Independent Power Producers (IPPs).

³ The SEFP aims to significantly increase the adoption and use of renewable energy technologies in participating Pacific Island States including Fiji through a package of incentives to encourage local financial institutions to participate in sustainable energy finance in support of equipment purchase.

⁴ The objective of PIGGAREP is the promotion of the productive use of renewable energy to reduce GHG emissions by removing the major barriers to the widespread and cost-effective use of commercially viable renewable technologies. For 2010, the planned PIGGAREP supported in-country activities in Fiji includes a Technical Assistance (TA) on Residential roof-top PV grid –connected system study for the main island of Viti Levu, enhancement of the Energy Information Systems and the implementation of a RESCO Manager (a computer software management tool) for the Fiji SHS Program.

- The implementing partner for FREPP is the Fiji Department of Energy (DOE), which also is the national focal point for PIGGAREP and SEFP. This in itself will facilitate coordination of GEF supported RE interventions in Fiji, and will be addressing different gaps and aspects of increasing the use of commercially viable renewable technologies.
- Since UNDP is also the GEF Implementing Agency for PIGGAREP, coordination with the PIGGAREP team can be guaranteed, thereby ensuring synergy and complementarities of the activities that will be carried out. Practically this will be done through consultations with SPREP, which is the Executing Agency for PIGGAREP.
- SPC Regional Energy Programme – as the new regional lead coordination agency in energy with its focus on capacity development, capacity supplementation including research and development and, data and information, FREPP activities will be complemented and enhanced through various planned regional initiatives supported by SPC.
- The University of the South Pacific (USP) is a regional academic institution that provides services through its large Fiji-based as well as its smaller country centers in all member countries of the Pacific. USP's School of Engineering & Physics under the Faculty of Science, Technology & Environment is involved in a number of teaching, training and research-based capacity building activities. USP is currently implementing a regional Clearing House Mechanism project funded by Korea that would add value to FREPP activities.
- Barriers related to financing of RE-based power generation projects will be coordinated with the SEFP project in Fiji, which focuses on innovative financing.
- In 2008, UNDP joined several development partners including the WB, ADB, European Union, NZAID and AusAID to establish the Pacific Energy Donor/International Financial Institutions (IFI) Working Group. This group has been established to facilitate coordination and collaboration among donor agencies and IFIs supporting PIC energy sectors in sharing of information and data, and joint funding of activities where appropriate. This is one of the mechanisms that will be used to facilitate that there will be clear work of responsibility between the proposed project and the SEFP.

E. DESCRIBE THE INCREMENTAL REASONING OF THE PROJECT:

Each component of the proposed project is comprised of baseline and incremental activities whose outputs will collectively contribute to, or help facilitate/influence the reduction of GHG emissions from Fiji's power sector. The baseline activities are those that were identified as the regular initiatives of the Government of Fiji (mainly by the FDOE) to ensure energy security in the country; the planned electrification expansion activities of FEA; and, stand-alone power projects by private sector entities that are interested in supplanting part of their energy consumption with available RE resources. Except for those carried out by the FDOE as part of their regular activities, the others are at best tentative and may not proceed as planned because of several constraints/limitations that were discussed earlier in Sec A above. While those planned activities will contribute significantly in the reduction of the use of fossil fuels in oil-based diesel generator sets that make up 35% of the country's power generation mix, thereby reducing CO2 emissions, these initiatives will not happen because of the existence of the aforementioned barriers/constraints. The barrier removal activities that will be carried out under this project constitute the incremental activities that will bring about or help facilitate the reduction of CO2 emissions from the thermal power generation activities in the country, and thereby contribute to the realization of global environmental benefits. Without the GEF-assistance that is being requested for this project, the necessary enabling environments such as the enactment and enforcement of the Energy Act, that are conducive to the widespread application of RE technologies for power generation will remain absent. Overall the envisioned incremental activities that the GEF will support are necessary in order to realize the global environmental benefits from the utilization of RE (including biomass) for power generation in Fiji.

F. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MANAGEMENT MEASURES:

The key risks for the project include ineffective project management, limited recognition and commitment of the government, political change, failure of some of the demonstration projects due to operational and environmental factors, and lower oil prices. Note that the risk related to the impacts of climate change on the amount of precipitation and thus the output of hydro power is not included in Annex 1 inasmuch as that risk is considered low. Moreover, FEA and IPPs,

which operate most of the existing and planned hydropower projects in Fiji has taken (in the case of existing facilities) and will take into, consideration the necessary mitigation actions should there be threats from potential climate changes, which at the moment are gauged as low level risks. Nonetheless, the impacts of climate change and climate variability are something that the proposed additional RE resource assessments on Component 2 of this project will also determine.

Risk	Mitigating Actions	Risk Level
Ineffective project management - The capacity in the Government of Fiji to effectively manage and implement major national projects is limited. At times, the limited available local capacity is utilized in many externally funded projects thereby diverting attention from higher priority national activities.	Dedicated project personnel will facilitate effective and efficient implementing of project activities. As such it is the plan that the proposed project will fund full time staff, which depending on the need the Government of Fiji will consider absorbing into its service at the end of the project	P = 3 (medium) I = 5 (high)
Limited recognition and commitment of the Government of Fiji including its relevant branches and agencies of the importance of comprehensive energy legislation – This also include the lack of appropriate allocation of government resources and enforcement on energy development initiatives.	Raise project profile and advocate for project benefits right from the outset including during Consultation and Design Workshop & Inception Workshop, ensure that all key stakeholders are involved and updated on progress regularly, and engage key policy stakeholders in activities.	P = 3 (medium) I = 5 (high)
Political change – Changes in the government can result in the new administration not supporting the energy policies, and possibly repeal of the Energy Act	The Preparation and endorsement of a comprehensive legislative framework (i.e., Energy Act and associated IRRs) will help ensure that the overall directions in the energy sector will survive changes in government	P = 3 (medium) I = 5 (high)
Failure of some of the demonstration projects - Failures of the demo projects will reduce stakeholder (including public and private investors and donors) confidence to invest including finance required hardware installations.	The proposed package of capacity building and enabling environment activities, centered on each demonstration project, will facilitate sustainability of these projects.	P = 1 (low) I = 5 (high)
Lower oil prices - A significant reduction in fossil fuel prices makes renewable energy a less attractive option to local, national and international investors.	While the project has no control on oil prices, the project will take this into consideration in the formulation of the energy policy and in the integrated energy planning.	P = 1 (low) I = 5 (high)

G. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

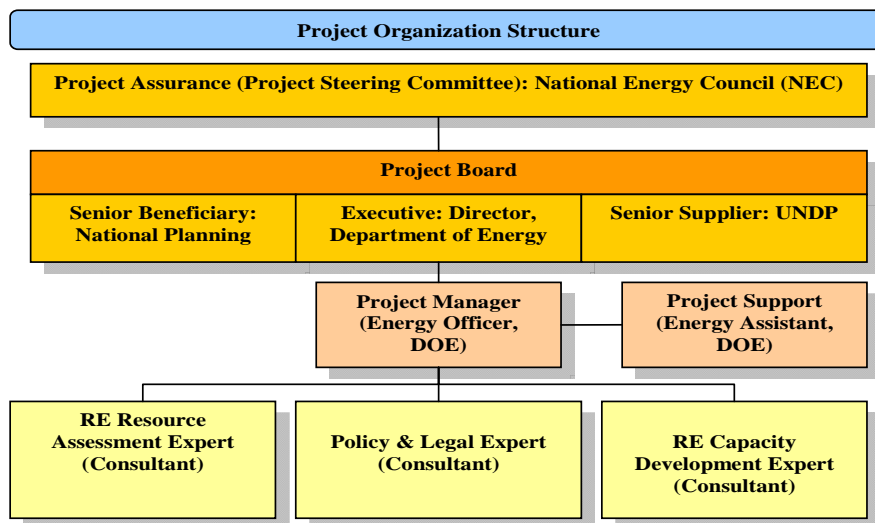
The proposed project is based on a barrier removal approach. Since the uptake of RE-based power generation in Fiji is hindered by clear and generally well understood barriers/constraints, addressing the removal of such barriers in a holistic and integrated manner will help facilitate the widespread utilization of the country's feasible RE resources for sustainably meeting the country's target of 100% electrification. At the same time such approach leads to a cost-effective way of contributing to the reduction of CO2 emissions in the power sector. Compared to other approaches which address only specific aspects of RE-based power generation development and application, an integrated approach of addressing the various inter-related issues would bring about more benefits.

The proposed project, which is focused on the creation of the enabling environments that are supportive to the development and application of RE technologies in power generation, will mainly bring about indirect CO2 emission reductions. However, the demonstrations that will be implemented under the project will result in CO2 emission reductions that can be directly attributed to the project. One 10 MW waste-to-energy project and 20 biofuel power projects are expected to reduce CO2 emissions by about 55.49 ktons annually. Conservatively estimating this annual amount throughout a period of 10 years (Lifetime of both projects is about 20 years), the total CO2 emission reductions is approximately 554.9 ktons. This translates to a unit abatement cost (GEF\$/ton CO2) of about US\$ 1.76/ton. This measure of the project's cost effectiveness will be tracked using a monitoring and evaluation system that the FREPP will develop to quantify potential energy savings from the demonstration projects and projected replication.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. PROJECT IMPLEMENTATION ARRANGEMENT:

The project will be implemented over 3 years beginning the first quarter of 2011 in line with the organogram shown below. The project will be executed by the Fiji Department of Energy, which is under the Ministry of Public Utilities (MPU) as the lead Implementing Agency. UNDP will serve as the GEF Implementing Agency for this Project. The MPU and UNDP will jointly monitor and evaluate all project activities. The project will be governed in accordance with the Guidelines, GEF Rules and Procedures and Government of Fiji operational principles.



The FDOE will execute the project on behalf of the Government of Fiji (GOF) under the National Implementation Modality (NIM) of the UNDP. UNDP-Fiji, which provides support to the project on behalf of the GEF takes the role of the Senior Supplier, while National Planning Ministry represents the GOF and act as the Senior Beneficiary of the Project. The three parties make up the core members of the Project Board which main function is to strategically guide the course of the project towards achieving its objective.

A project manager (PM) will be appointed by the FDOE. The PM will be responsible for running the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board, has the prime responsibility to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

FREPP will be nationally implemented (NIM) by the Government of Fiji through the FDOE, where the focal point of contact will be the FDOE Director. Funds will be released to the Development Account of the Ministry of Finance. The Ministry of Finance will be responsible for the initial warrant and disbursement of funds in accordance with the work plan and the project document. Further cash advances will be contingent upon timely reporting of expenditure by the Department of Energy to the UNDP MCO, Fiji.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:

SEE ANNEX 1

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for CEO Endorsement.

<i>John Hough</i> UNDP-GEF Dep. Chief Exec Coordinator Date: <i>(Month, Day, Year)</i>	Manuel L. Soriano Regional Technical Advisor – Energy & Climate Change Tel. and Email: +66-2-2882720; manuel.soriano@undp.org
--	--

ANNEX 1: RATIONALE FOR CHANGES IN PIF OUTPUTS/ACTIVITIES IN THE ProDOC

Expected Outcomes & Outputs		Rationale for Changes in PIF Outcomes/Outputs in the ProDoc
GEF-Approved PIF	Project Document	
COMPONENT 1:		
Outcome 1: Facilitation of investments on energy projects, particularly on RE-based power generation Output 1.1. Enacted and enforced Fiji Energy Act and implementing rules and regulations	Outcome 1 – Facilitation of investments on energy projects, particularly on RE-based power generation Output 1.1 – Enacted and enforced Fiji Energy Act Output 1.2 – Enforced Implementing Rules and Regulations (IRRs) for the Fiji Energy Act Output 1.3—Government agencies with enhanced regulatory and institutional capacity on energy development in general, and RE development in particular	The present outputs fully reflect the needs expressed by the project stakeholders during the PPG exercise. The modified outcome statement and the set of outputs further specify institutional and policy frameworks that need to be in place to promote commercial RE-based power generation. Capacity building for the relevant GOF agencies are necessary to ensure sustained support for the RE power generation investments in Fiji that will be influenced/facilitated by FREPP.
COMPONENT 2:		
Outcome 2: More energy projects on the utilization of confirmed viable RE resource potentials are planned and implemented Output 2.1. Completed and published RE resource assessments and mapping Output 2.2. Report on the viability of the development and utilization of identified RE resources	Outcome 2 – Technical feasibility of harnessing RE resources are ascertained and made widely known Output 2.1 – Operational Centralized Energy Database System Output 2.2 – Completed and published RE resource assessments Output 2.3 – Completed feasibility assessments of RE investments	To supplement the RE resource assessments, a central energy database system has been added as an output under this component. This will strengthen data/information management. Completed feasibility assessments of RE investments have been added as one of the outputs, the information of which will also be inputted in the central energy database system.
COMPONENT 3:		
Outcome 3: Markets for specific renewable energy technologies are developed Output 3.1. Designed and implemented RE-based power generation demonstration Output 3.2. Documentation of demonstration results for distribution	Outcome 3 – Markets for specific renewable energy technologies are supported Output 3.1 – Designed and implemented RE-based power generation demonstration Output 3.2 – Prepared Standard Power Purchase Agreement (PPA) for Independent Power Producers (IPPs) Output 3.3 – Completed Investment Promotion Package	Demo results evaluation, documentation and dissemination are part of the demo implementation. Stakeholders stressed difficulties experienced by IPPs in negotiating and sourcing PPAs. One of the suggestions is to come up with a standardized PPA template. Investment promotion packages are also necessary to encourage prospective RE-based power generation project investors. A RE

Expected Outcomes & Outputs		Rationale for Changes in PIF
	Output 3.4 – Completed assessment and developed RE incentives schemes	incentives scheme would enhance RE investment from the private sector.
COMPONENT 4:		
Outcome 4: Energy policy making and integrated energy planning (IEP) are regularly carried out by FDOE. Initiation of the 100% electrification program of Fiji Output 4.1. Completed training courses on IEP and energy policy making for FDOE personnel Output 4.2. Completed and approved national electrification master plan	Outcome 4 – Renewable Energy developments integrated into National Energy Plan towards 100% electrification of Fiji Output 4.1 – Completed training programme on Integrated Energy Planning (IEP) and administrative energy policy for government personnel Output 4.2 – Completed and approved National Electrification Master Plan	Changes made were just to emphasize the integration of RE development into the National Energy Plan. Energy policy making and IEP will still be promoted.

ANNEX A: Project Planning Matrix

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: The mainstreaming of environmental sustainability and sustainable energy into regional and national policies, planning frameworks and programmes; and Pacific communities sustainably using their environment, natural resources and cultural heritage.					
Country Programme Outcome Indicators: # of national development strategies, policies, plans of PICs incorporating environmental sustainability issues, % increase in national budget for environmental sustainability issues.					
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy OR 2. Catalyzing environmental finance OR 3. Promote climate change adaptation OR 4. Expanding access to environmental and energy services for the poor.					
Applicable GEF Strategic Objective and Program: For Strategic Program 3 (SP-3): Promoting Market Approaches for Renewable Energy and Strategic Program 4: Promoting Sustainable Energy Production from Biomass					
Applicable GEF Expected Outcomes: For SP-3: growth in markets for renewable heat power in participating program countries; and for SP-4: the adoption of modern and sustainable practices in biomass production, conversion and use as energy					
Applicable GEF Outcome Indicators: For SP-3: tons of CO ₂ e avoided, the adoption of on-grid renewable policies, and the quantity of electricity generated from renewable sources; and for SP-4: tons of CO ₂ e avoided; the adoption of modern biomass conversion technologies, improved efficiency of biomass energy use, kWh of electricity and heat generated from biomass sources, and energy services produced on the basis of biomass					
Strategy	Indicator	Baseline	Targets	Source of Verification	Risks and Assumptions
Goal Reduction of Fiji's greenhouse gas emissions by replacing fossil fuels by renewable energy resources and biomass utilization	Greenhouse gas emission from power generation in Fiji by the end of project (EOP), ktons CO ₂	1,265.6	1,066.1	DoE Records, IPP power generation data, National Statistics, National Communications, FREPP progress reports and M&E reports	Transparency of decision making, cooperation of stakeholders in the provision of data, stable political environment
Project Objective⁵ Removal of major barriers to the widespread and cost-effective use of grid-based renewable energy supply via commercially viable renewable energy technologies	Cumulative installed private sector-owned RE-based power generation capacity by EOP, MW Share of RE in Fiji's power generation mix by EOP, % Cumulative electricity production from RE-based power generation facilities by EOP, GWh	0 ⁶ 52 2664.2	20 90 3189.5	Survey of IPP investment activities; interviews with prospective investors, FTIB approvals, Financing documents from banks/financial institutions, FREPP progress reports and M&E reports, FEA Annual Reports, DOE Yearly Energy Statistics	Investors perceive current governance systems as conducive for doing business in Fiji. Fiji's sovereign risk can be managed through government guarantees.
OUTCOME 1 Facilitation of investments on energy projects, particularly on RE and biomass based power generation	Cumulative investment on RE-based power generation by EOP, US\$ million	0	100	Survey of IPP investment activities, interviews with prospective investors, FTIB approvals, Financing documents from banks/FIs, FREPP progress reports and M&E reports	Investment climate does not deteriorate further, political stability maintained, government able to take on additional contingent liabilities.
OUTCOME 2	No. of identified technically viable RE projects	0	6	DoE files, DoE annual reports	FEA is not privatized (sold)

⁵ Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR

⁶ Considering that FSC and Tropik Woods are not entirely IPPs.

Technical feasibility of harnessing RE resources are ascertained and made widely known	EOP No. of investors that made use of available technical information on feasible RE-based energy system projects by EOP	0	20		completely and co-operates in an effort to mobilize private sector capital.
OUTCOME 3 Markets for specific renewable energy technologies are supported	No. of additional rural households that have access to green electricity by EOP. No. of financial closures achieved for new RE-based power generation projects by EOP No. of RET system equipment/component suppliers & distributors in Fiji by EOP Overall volume of business in the RE market in Fiji by EOP, US\$ million	0 0 5 0	10,000 20 7 100	Signed PPA, contracts, financing agreements, shareholder agreements; HIES Report, DOE Annual reports & records,	Political will exists to allow private sector investment in IPP. FEA remains a state owned utility, Private sector investors perceive Fiji as viable destination. Government ruling in other sectors does not undermine investors confidence
OUTCOME 4 Renewable Energy developments integrated into National Energy Plan towards 100% Electrification of Fiji.	Cabinet approved-Electrification Master Plan Average annual budget for the Electrification Master Plan by EOP, US\$ million % utilization of Fiji's RE resources (for power purposes) by EOP	0 0 52	Dec 2013 10 90	Master plan document, DoE Webpage, DoE files, FEA Annual Report, DOE Energy statistics Year book	The goal of 100% electrification is maintained; Renewable based power generation continue to be cost competitive; Renewable energy potential is sufficient to meet current and future demand

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF)

GEFSEC COMMENTS (14 OCTOBER 2009)

Comments & Responses	Reference
<p><u>Comment:</u> <i>Is the project design sound, its framework consistent & sufficiently clear (in particular for the outputs)? The project has a strong focus on policy framework (components 1 and 4) and RE resource assessments have been undertaken already in the PIGGAREP project. Please consider further demonstration projects and reducing the amount of funding for component 1, 2 and 4. Please consider the local financial sector to be included in institutional strengthening to increase the replicability of the project.</i></p> <p><u>Response:</u></p> <p>1) Yes it is correct that the project has a strong focus on policy framework. The need to improve the existing national policy framework for energy including renewable energy has been stressed in recent years by national level stakeholders, which in addition have been verified by external assessments supported by ADB, UNDP and others. At the moment, there are relevant acts and policies 'lying all over the place'. The FREPP intends to bring all of these instruments under one umbrella, which would ensure that interventions are directed to the appropriate areas within the sector. In some of the areas, a lot of work needs to be done to establish clear guidelines to facilitate RE development. Specifically, as part of the proposed project a Fiji Energy Act and associated implementing rules and regulations is expected. This will put in place an overarching legal and regulatory framework on energy including in the area of renewable energy development and utilization.</p> <p>2) In context of Fiji's participation in the PIGGAREP, the following should be noted: (i) So far, PIGGAREP support to in-country activities in Fiji has included procurement of hydro monitoring equipment and detailed design of two micro/mini hydroelectric projects; (ii) As part of the 2009 PIGGAREP work plan for Fiji, there are five (5) key activities (including evaluation of the Fiji PV SHS project, technical assistance on establishment of biogas market and technical assistance for strengthening the national Energy Information System), but there is nothing on assessments of other potential RE resources; and, (iii) The total allocation for in-country activities in Fiji as part of the five (5) year PIGGAREP is US\$380,000 (which is the same amount initially allocated to for all the 11 participating Pacific Island Countries). While such resources can address some of the RE needs in Fiji - including for hydro, wind and biomass resources assessments - such level is of course not sufficient to address all needs in this area. The above mentioned are some of the reasons why a component on RE Resource Assessments is also included in FREPP. As mentioned in Part II, Section E of the PIF, with the Fiji Department of Energy (FDoE) as executing agency and UNDP being the GEF Implementing Agency for PIGGAREP as well as FREPP, it can be ensured that work undertaken in the area of RE Resource Assessments as part of both projects will complement and build on each other.</p> <p>3) It should be noted that for the proposed project: (i) the indicative GEF financing for Component 3 (Demonstration projects) is US\$ 427,500, which is the highest budget allocation for any of the proposed project components, accounting for 43.8% of the total GEF contribution; and (ii) with a total budget allocation of US\$ 1,427,500, Component 3 has the highest budget for any of the proposed project components, accounting for 57.7%</p>	<p>PIF: 1st paragraph, Page 5</p>

Comments & Responses	Reference
<p>of the total project budget (GEF and co-financing). While more funds for demonstrations would be welcome, the project proponents believe that the proposed allocation for the envisioned demonstrations is sufficient. In that regard, the important interventions needed for the policy frameworks and RE resource assessments have to be supported. As previously mentioned, there is an urgent need to improve the existing national policy framework for energy including RE development and utilization as this plus other policy-related barriers need to be fully addressed. Additional resources are also needed for assessments of RE resources that are not fully covered in PIGGAREP (i.e., for hydro, wind and biomass). Such assessments will also include simulations to determine impacts of various factors (including climate change and variability, seasons, etc.) on the availability and quantities of the RE resources. These incremental activities are necessary if the objective of promoting a wider use of the country's RE resources is to be achieved. Furthermore, the indicative budgets set aside for Component 1 on Policy Frameworks (i.e., US\$ 200,000), and Component 2 on RE Resource Assessments (i.e., US\$ 400,000), considering the proposed tasks to be carried out are considered as minimum. Nonetheless, as mentioned in Part II, Section A of the PIF, the key tool which will be used for the review and elaboration of the project design will be a Logical Framework Analysis that will be initiated through a Consultation and Design Workshop to be participated in by key national stakeholders. In this context, it is proposed that if findings from the PPG Exercise confirm the need for additional demonstration projects and less than anticipated resources needed for Components 1, 2 and 4, then the necessary budget allocation adjustments will be done and reflected in the MSP Document.</p> <p>4) Regarding the involvement in the project of the local financial sector, the plan is to involve some of the local banks in Fiji such as the Fiji Development Bank. Their involvement will facilitate the replicability of the RE technology applications that will be demonstrated under the FREPP. The project will also provide supplementary support to capacity development in the local financial sector if such can be demonstrated to complement ongoing and planned interventions as part of the WB/GEF Sustainable Energy Financing Project (SEFP). It should be noted that at the moment, the FDoE is working with the WB on the SEFP to facilitate the participation of local financing institutions in the promotion including lending towards investments on RE technologies.</p>	
<p><u>Comment:</u> <i>Does the project take into account potential major risks, including the consequences of climate change and includes sufficient risk mitigation measures? How will the risk of climate change that affects the amount of precipitation and thus the output of hydro power be addressed? What about the risk of low replication due to missing capacities of local financial institutions?</i></p> <p><u>Response:</u> 1) Water flow is of course a vital factor in the operations of hydroelectric power plants. Decreased precipitation and increased evaporation due to higher temperatures and wind speeds lowers water levels in reservoirs, lakes and rivers and can significantly reduce the output of hydroelectric power stations. Managing climate risks and opportunities for the energy sector requires the identification of specific vulnerabilities and decision-making based on reliable climate predictions. With IPCC projecting more weather extremes in the future, the need for quality observations and reliable seasonal to multi-decadal climate predictions becomes critical. The impacts of climate change and variability are something that the proposed additional RE resource assessments will also determine. In that way, it would be possible to take such information from the simulations into consideration in the</p>	<p>PIF: Part II; Sec. G, p. 8</p>

Comments & Responses	Reference
<p>design of the mini/micro hydropower facilities that will be showcased under the project. As to the other risk mitigation strategies, these include: (i) Communities and national level stakeholders to look into managing water supplies to plan for anticipated seasonal shifts in hydroelectric supply and demand; (ii) additional hydroelectric power transmission systems to be built to connect areas expected to be water-rich to areas that could be more drought-prone; and, (iii) most importantly perhaps, Fiji can diversify its energy mix to protect against the shortfall of any single energy source including in this case hydropower. On the latter risk mitigation strategy, diversification is something Fiji has been working on over the last many years. In the Fiji National Energy Policy (2006) there are four key strategic areas one of which is energy security. Specific policies for Fiji in this area are as follows: (i) promote the development of indigenous energy sources such as hydropower, geothermal, solar, wind and biomass; (ii) promote energy efficiency and energy conservation in all sectors; and, (iii) strengthen energy security and improve energy supply mix for the country.</p> <p>2) The ongoing WB/GEF SEFP (<i>Component 2: Technical assistance, market surveys and communications</i>) involves the provision of technical assistance to: (i) Strengthen the capacity of local financial institutions to service clients that wish to borrow to purchase selected small scale RE technologies; and, (ii) Provide relevant training to the Fund Manager that will administer the Risk Sharing Fund (RSF). The proposed FREPP will also provide supplementary support to capacity development in the local financial sector if such can be demonstrated to complement ongoing and planned interventions in the SEFP.</p>	<p>PIF: 1st paragraph, Page 5</p>
<p><u>Comment:</u> <i>Is PIF clearance being recommended? PIF clearance will be recommended after comments have been addressed.</i></p> <p><u>Response:</u> The project proponents have adequately addressed the review comments and are therefore expecting soon the GEF CEO's approval of the proposed PIF and PPG Request.</p>	

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT

Position/Title	US\$/wk	Person-wk	Tasks to be Performed
FOR PROJECT MANAGEMENT			
LOCAL CONSULTANTS			
Project Manager	\$384.61 (@ \$60,000/3 yrs)	156	<ul style="list-style-type: none"> Serve as Head of Project Management Office (PMO) housed at DOE. Assume overall responsibility for day-to-day management, coordination and implementation of all project activities. Facilitate liaison and networking between and among the national stakeholders, regional organizations, public and private sector players and other individuals involved in project implementation. Ensure the FREPP is consistent with the national energy framework and related national climate change and sustainable development policies
Project Administration / Finance Assistant	\$157.05 (@ \$24500/3 yrs)	156	<ul style="list-style-type: none"> Conduct secretarial activities of the project including correspondence, filing and drafting minutes of meetings, arranging travel and accommodation logistics for all project-related meetings and associated travels. Work together with DOE Accountant on the requests for the advance of projects funds from UNDP to DOE and any required payments from DOE to project-implementing partners. Assist the PM in ensuring regular and timely receipt of progress reports and annual project audit.
FOR TECHNICAL ASSISTANCE			
LOCAL CONSULTANTS			
RE Resource Assessment Expert	\$1308.32	40	<ul style="list-style-type: none"> Assist with development of RE assessment methodology including training programme on application and modification to enhance local capacity for estimating RE resource potentials. Assist with wind, solar and biomass energy resource surveys in selected sites. Assist with development of RE monitoring and simulation methodology. Assist with preparation of wind, solar and biomass energy map based on data generated in surveys.
Policy Expert	\$1308.32	40	<ul style="list-style-type: none"> Assist in preparation of Energy Bill. Assist in detailed study on energy supply and consumption. Assist with an integrated national energy planning along with National Energy Master Plan. Assist with workshop introducing and promoting the integrated National Energy Master Plan.
Capacity Development Expert	\$1308.32	40	<ul style="list-style-type: none"> Assist with detailed assessment of human capacity in the area of renewable energy in Fiji and identify areas of expertise required and capacity building opportunities. Assist in liaising with local /regional training institutions and assess current renewable energy training programmes offered. Assist with development of comprehensive training programme needed to up-skill /expand the human resources capacity in renewable energy for Fiji and prepare draft training modules to address gaps. Assist with documentation of findings on training delivery modality
INTERNATIONAL CONSULTANTS			
RE Resource Assessment Expert	\$3,833	20	<ul style="list-style-type: none"> Develop RE assessment methodology including training programme on application and modification to enhance local capacity for estimating RE resource potentials. More specifically, conduct wind, solar and biomass energy resource

Position/Title	US\$/wk	Person-wk	Tasks to be Performed
			<p>surveys in selected sites.</p> <ul style="list-style-type: none"> ▪ Develop RE monitoring and simulation methodology. ▪ Prepare wind, solar and biomass energy map based on data generated in surveys.
Policy Expert	\$3,833	20	<ul style="list-style-type: none"> ▪ Prepare Energy Bill. ▪ Conduct detailed study on energy supply and consumption. ▪ Conduct an integrated national energy planning along with National Energy Master Plan. ▪ Conduct workshop introducing and promoting the integrated National Energy Master Plan.
Capacity Development Expert	\$3,833	20	<ul style="list-style-type: none"> ▪ Conduct detailed assessment of human capacity in the area of renewable energy in Fiji and identify areas of expertise required and capacity building opportunities. ▪ Liaise with local /regional training institutions and assess current renewable energy training programmes offered. ▪ Draw-up comprehensive training programme needed to up-skill /expand the human resources capacity in renewable energy for Fiji and prepare draft training modules to address gaps. ▪ Prepare comprehensive report on findings including recommendations on training delivery modality.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

The PPG objective (i.e. the development of a technically and financially sound UNDP-Fiji project document) has been achieved through the PPG activities.

B. DESCRIBE IF ANY FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION. N/A

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS:

<i>Project Preparation Activities Approved</i>	<i>Implementation Status</i>	<i>GEF Amount (\$)</i>				<i>Co-financing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
Review of Experiences in RE development and utilization in Fiji	Completed	2,000	2,000	2,000	0	0
Logical Framework Analysis	Completed	5,000	5,000	5,000	0	1,500
Potential RE-based Power Generation Demonstration Assessments	Completed	5,000	5,000	5,000	0	0
Detailed Design of Project Components & Activities	Completed	10,000	3,004.83	10,000	6,995.17	500
Coordination Mechanisms and Other Institutional Work	Completed	3,000	3,000	3,000	0	500
Preparation of GEF Project Document	Completed	0				2,000
Finalization of the GEF Project Document & CEO Endorsement Request	Completed	0				500
Total		25,000	18,004.83	25,000	6,995.17	5,000

*Uncommitted amount should be returned to the GEF Trust Fund. Please indicate expected date of refund transaction to Trustee. _____