

### **MEMORANDUM OF UNDERSTANDING**

# Scaling-up Renewable Energy Program in Low Income Countries (SREP)

Joint Multilateral Development Bank Scoping Mission

**Solomon Islands** 

13-17 August, 2012





#### I. INTRODUCTION

- 1. A joint mission<sup>1</sup> (Mission) from the Asian Development Bank (ADB), the World Bank (WB) and the International Finance Corporation (IFC) visited the Solomon Islands from 13-17 August 2012 to conduct a scoping mission for the preparation of the Scaling-up Renewable Energy Program in Low Income Countries (SREP) Investment Plan under the Climate Investment Funds. This Memorandum of Understanding (MOU) records the understandings reached between the Government of Solomon Islands and the Multilateral Development Bank (MDB) team. The Mission would like to express its appreciation for the cooperation and the hospitality extended by the Government.
- 2. The Climate Investment Funds (CIF) provides developing countries with grants, concessional loans, and risk mitigation instruments. The implementing agencies of CIF funded projects and programs In the Pacific are the ADB and the WB, including the IFC. The CIF's financial architecture rests on two trust funds: (i) the Clean Technology Fund (CTF); and (ii) the Strategic Climate Fund (SCF). The SCF includes the Forest Investment Program, the Pilot Program for Climate Resilience, and the Scaling-up Renewable Energy Program in Low-income Countries (SREP).
- 3. The objective of the SREP is to pilot and demonstrate the economic, social and environmental viability of low carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy. An initial group of six pilot countries has received funding under the SREP program (i.e., Kenya, Ethiopia, Mali, Nepal, Honduras and Maldives). In addition, a group of 'waitlisted' countries, including Vanuatu and Solomon Islands in the Pacific Region, were selected to receive SREP funding provided additional resources become available. In March 2012, the SREP sub-committee agreed upon the upper amount of funding and order of priority in which funding would be allocated to these 'waitlisted' countries: (i) Tanzania, US\$50 million; (ii) Liberia, US\$50 million; (iii) Yemen, US\$40 million; (iv) Armenia, US\$40 million; (v) Vanuatu (\$15 million) and Solomon Islands (\$15 million) in the Pacific region; and (vi) Mongolia, US\$30 million. As of May 2012, only Tanzania has secured SREP funding, implying that Pacific Regional (Vanuatu, Solomon Islands) will receive SREP funding once additional resources have become available for Liberia, Yemen, and Armenia (in this order).
- 4. On 22 June 2012, the Government confirmed its interest to start with the preparation of the SREP investment plan and submitted the Confirmation of Interest Form and sent the invitation for the joint scoping mission on 16 July 2012. The Government of Solomon Islands has requested that ADB and the WB/IFC assist in preparing the SREP investment plan for Solomon Islands. The SREP Committee has allocated \$250,000 for the development of the Renewable Energy Investment Plan, which will detail the Governments priority renewable energy investments and will inform SREP Committee decisions for funding allocations. The current scoping mission discussed and agreed with the Government on the scope of the SREP Investment Plan and the Terms of Reference for the preparation of the Investment Plan.

-

<sup>&</sup>lt;sup>1</sup> The Mission comprised (i) Anthony Maxwell, Senior Energy Specialist, ADB, (ii) Jiwan Acharya, Senior Climate Change Specialist, ADB, (iii) Tendai Gregan, Energy Specialist, WB, and (iv) Navneet Chadha: Principal Operations Officer, Climate Change, IFC.

#### II. SECTOR BACKGROUND

- 5. Installed capacity in Honiara is 26MW (peak load 14.3MW) and combined installed generation capacity in the outer islands is around 4MW. Provision of electricity services is concentrated on Honiara in Guadalcanal. While 87% of the national installed power generation is located in Honiara, Guadalcanal accounts for 12% of the population of the Solomon Islands (total population 553,000). Electricity generation in Solomon Islands is 100% diesel generated with the exception of mini-hydropower operated in Malu'u (0.04MW) and Buala (0.15MW). There is currently no private sector participation in power generation in the Solomon Islands.
- 6. Due to the reliance on diesel generation, power tariffs in Solomon Islands are relatively high. SIEA charges a national uniform tariff, which in 2010 was \$0.59c/kWh to residential customers and \$0.63/kWh to commercial customers. Due to the high cost of transporting diesel to the outstations, generation costs in the outer islands are considerably higher than Honiara. (\$0.53 in Honiara compared to \$0.94 in Lata). Nationwide electricity is supplied to approximately 14% of the population. Electrification is largely confined to Honiara and eight provincial centers. Outside of these urban centers, less than 5% of the rural population has access to electricity through a small number of off-grid and individual household solar and diesel systems. Electricity access rates in Guadalcanal (Honiara) is 20% and Western Province is 17%, however access rates in the remaining provinces is extremely low, for example Malaita 3%, Temotu 3%, Choiseul 2%.
- 7. Existing off-grid renewable energy projects in Solomon Islands include a range of household solar system programs and a small number of community based pico-hydropower schemes operating in remote villages. Wind monitoring is also proposed at target sites<sup>2</sup>. Grid connected renewable energy is limited to mini-hydropower at Buala and Malu'u and an SIEA trial to replace diesel with coconut oil in the second largest outstation (Auki, Malaita). The Tina River Hydropower Project (14MW) is currently being developed to supply the Honiara grid<sup>3</sup>.

#### III. MISSION ACTIVITIES

- 8. The Mission met with a range of stakeholders in Honiara, including the Ministry of Finance, the Ministry of Mines, Energy, and Rural Electrification (MMERE), Solomon Islands Electricity Authority (SIEA), development partners, private sector, non-government organizations and commercial banking sector. A list of persons met is included in Appendix A.
- 9. **Technical Assistance Cost Estimate**. The Government has requested ADB apply for the \$250,000 allocated by SREP Committee for preparation of the Renewable Energy Investment Plan and administer the technical assistance. The Government will finance \$50,000 equivalent as in-kind contribution to support development of the Renewable Energy Investment Plan. The preparation of the Investment Plan will consist of two phases: (i) assessment of the renewable energy and preparation of a Renewable Energy Investment Plan, and (ii) preparation of project proposals for potential financing by SREP. The TA will be implemented over a 9 month period and is expected to commence in September 2012 and be completed in June 2013.

<sup>2</sup> 3 wind monitoring stations are proposed for installation in 2012 on outer islands financed by PIGGAREP.

<sup>&</sup>lt;sup>3</sup> Tina River Hydropower Project development is supported by AusAID, European Investment Bank, International Finance Corporation and World Bank. Financing is proposed through an independent power producer.

10. **Implementation Arrangements.** The Executing Agency (EA) will be the Ministry of Mines, Energy and Rural Electrification. Consultants will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* (2010, as amended from time to time), through consulting firm or individual selection method. The EA will provide support to the consultants, including (i) arranging meetings with relevant Government stakeholders, (ii) providing access to all relevant data, and (iii) a suitably furnished office with utilities and telecommunications access.

Table 1: Cost Estimates and Financing Plan (\$'000)

Item			Total Cost	
Α.	ADB Financing <sup>a</sup>			
	1.	Consultants		
		a. Remuneration and per diem		
		i. International consultants (7 person-months)	185.0	
		ii. National consultants (6 person-months)	33.0	
		b. International and local travel	12.0	
	2.	Workshops, training, seminars, and conferences <sup>b</sup>	5.0	
	3.	Contingencies	25.0	
		Subtotal (A)	250.0	
В.	Government Financing			
	1.	Office accommodation and transport	20.0	
	2.	Remuneration and per diem of counterpart staff	20.0	
	3.	Contingencies	10.0	
		Subtotal (B)	50.0	
		Total	300.0	

<sup>&</sup>lt;sup>a</sup> Financed by Scaling Up Renewable Energy Program in Low-income Countries (SREP).

11. The following indicative schedule is proposed for project development:

**Table 2: Proposed Processing Schedule** 

Milestones	<b>Expected Completion Date</b>
Joint Scoping Mission	August 2012
Consultant Recruitment	September – November 2012
Consultant Mobilization	December 2012
Phase 1 Joint MDB Review Mission	February 2013
Draft Investment Plan	March 2013
Phase 2 Joint MDB Review Mission	April 2013
Submittal to SREP Committee	June 2013

Source: ADB/WB/IFC estimates

b will include consultation workshops in Honiara and provincial centers Source(s): Asian Development Bank and Government estimates

Signed in Honiara, Solomon Island, 17 August 2012

Shadrack Fanega

Permanent Secretary

Ministry of Finance and Treasury

Rence Sore

Permanent Secretary Ministry of Mine, Energy,

Ministry of Mine, Energy, and Rural Electrification

Tendai Gregan

Energy Specialist
World Bank Group

Anthony Maxwell

Senior Energy Specialist Asian Development Bank

#### List of Appendices

- A. List of Persons Met
- B. Draft Consulting Terms of Reference
- C. Development Partner Activity Matrix, Renewable Energy, Solomon Islands
- D. Renewable Energy References
- E. Mission Clearance
- F. List of Stakeholders

#### **Appendix A: List of Persons Met**

**Ministry of Finanace** 

Mr. Harry Kuma Under-secretary, Economics

Mr. Mathew Pitavato Director (Acting), Financial and Economic Development Unit Economist, Financial and Economic Development Unit

Ministry of Mines, Energy and Rural Electrification

Mr. Rence Sore Permanent Secretary
Mr. John Korinihona Director, Energy Division

**Ministry of Rural Development** 

Ms. Selina Z. Boso Permanent Secretary

**Solomon Islands Electricity Authority** 

Mr. Norman Nicholls General Manager
Mr. Mike Payne Chief Financial Officer
Mr. Martin Sam Generation Manager

**Development Partners** 

Mr. Scott McNamaran Development Program Specialist, AusAID

Mr. Matthew Howell First Secretary – Development, New Zealand High Commission

Mr. Yasuo Miura Project Formulation Advisor

Mr. Juan Carlos Hinojosa Attache – Social Sector/Governance, European Union

**Commercial Banking Sector** 

Mr. Sean Stratton Head of Retail Banking, ANZ

**Non-Government Organizations** 

Mr. Osbert Slalahu Country Manager

Mr. Jared Berends Operations Manager, World Vision

**Private Sector** 

Mr. In-Sup Shin Managing Director, Eagon Pacific Plantation Ltd.
Mr. Ingo Roempke Principal Engineer, Pacific Power Rural Electrification

#### **Appendix B: Draft Consulting Services Terms of Reference**

- 1. Consultant services are required to assist the Solomon Islands Government (SIG) in developing a Renewable Energy Investment Plan and a set of prioritized proposals to implement the Investment Plan. The results of this work are to be used to seek investment funding from the Climate Investment Funds' "Scaling-up Renewable Energy Program (SREP)", Multilateral Development Banks, other development partners, and the private sector. The consultant will be required to consult with the SIG, Asian Development Bank (ADB), World Bank, and International Finance Corporation (IFC) throughout the assignment. The Consultant will draw from the large volume of analysis previously conducted in the renewable energy sector. All relevant reports will be made available to the Consultant.
- 2. The TA will require 3 international consultants (7 months) and 3 national consultants (6 months) to be hired through a consulting firm. Consultants will be engaged by ADB in accordance with the *Guidelines on the Use of Consultants* (2010, as amended from time to time). The consulting firm will be engaged through quality and cost based selection method (quality-cost ratio of 90:10)<sup>4</sup> using simplified technical proposal. The procurement of equipment by consultants under the TA, will follow ADB's *Procurement Guidelines* (2010, as amended from time to time). The proceeds of the TA will be disbursed in line with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). The equipment procured under the TA will be turned over to the Government upon TA completion. The Consultants will undertake the proposed consulting work in two phases:

#### Phase 1. Preparation of a Renewable Energy Investment Plan

- 3. <u>Task 1: Energy Sector Overview</u>. The Consultant will undertake the following activities:
  - review all available background information on renewable energy.
  - prepare brief country analysis, including main demographic, social and economic indicators.
  - prepare an overview of the energy sector, including: (a) basic energy balance; (b) description of the sector structure; (b) legislative and regulatory framework; government strategy; (c) electricity generation, transmission and distribution assets; (d) electricity generation mix; (d) tariffs and tariff structures; (e) key entities involved in regulation of the energy sector and (f) key challenges facing the sector.
  - assess the current and planned activities and projects in the field of renewable energy.
  - assess lessons learnt from the failure/success of previous renewable energy projects; globally, in the Pacific Islands and in the Solomon Islands.
  - assess the key barriers (technical, regulatory, financial) hindering the development of renewable energy and propose measures to overcome these barriers. This activity should provide detailed description of availability of private or other government financing for renewable energy projects, including terms of financing and discuss the bottlenecks to development of renewable energy associated with availability and/or terms of financing.
  - consult with stakeholders, including development of a consultation plan and one consultation workshop each in Honiara and a targeted provincial centre.

-

<sup>&</sup>lt;sup>4</sup> 90:10 is considered suitable as the project requires specific technical capacities for design of small hydropower in remote island locations.

- 4. <u>Task 2: Assess Renewable Energy Technologies.</u> The Consultant will undertake the following activities:
  - assess the lifecycle costs of various renewable energy technologies, including hydropower, (less than 10MW capacity), geothermal, wind, solar PV, coconut oil biofuel, biomass (direct combustion and gasification), solar heaters, and other technology suggested by MMERE).
  - compare the lifecycle costs of various renewable energy sources against diesel generation costs.
  - assess the impact of combinations of renewable energy options on end-user tariff.
  - assess various delivery mechanisms for renewable energy for (i) grid connected generation, (ii) standalone new mini-grids, and (iii) household based generation. These may include, but not be limited to delivery through Solomon Islands Electricity Authority (SIEA), Government Departments, Non-Government Organizations (NGO's), and private sector. Assess the capacity of these agencies to deliver (implementation, operation and maintenance) renewable energy projects.
  - assess options for involvement of private sector, including but not limited to independent power producers, operation and maintenance contracts and long term maintenance service contracts.
  - consult with Solomon Islands Electricity Authority (SIEA), Government Departments, Non-Government Organizations (NGO's), and private sector to assess feasibility and interest in various delivery mechanisms.
  - present findings to Government and ADB/WB/IFC.
- 5. <u>Task 3: Prepare the Renewable Energy Investment Plan.</u> The Consultant will undertake the following activities:
  - analyze demographic data for Solomon Islands provinces (utilizing CAD drawings) to assess options for rural electrification, including identification of population centers suitable for electrification using renewable energy options (conversion of existing diesel out-stations and grid extensions, mini-grids or household based systems).
  - prepare the draft Renewable Energy Investment Plan (Investment Plan) based on prioritized list of renewable energy investments.
    - the Investment Plan will be suitable to serve as the national renewable energy investment plan and will include grid-connected renewable energy, new renewable energy mini-grid systems and standalone household renewable energy systems.
    - the prioritization of potential renewable energy projects will be determined in consultation with the government and having regard to energy planning principles, economic criteria, and long-term sustainability.
    - o estimate the increase in access rates from the proposed priority projects.
  - identify the issues that need to be addressed in order to successfully allow the implementation of the proposed Investment Plan. The Investment Plan shall meet the requirements of, and be compatible with, the procedures and goals of the SREP.
  - revise and finalize the draft investment plan in response to comments received from stakeholders.

#### Phase 2. Development of SREP Proposals.

- 6. In close consultation with Government and the multilateral development banks, the Consultant will develop a series of proposals for SREP funding consideration. These will include support for policy and regulatory reform, investment proposals and capacity building activities. The Consultant will agree on the table of contents with the Government and the multilateral development banks during the Inception Mission. The proposals will include, but not be limited to the following:
  - project rationale
  - proposed contribution to initiating transformation
  - implementation readiness
  - rationale for SREP financing
  - results indicators
  - financing plan
  - project preparation timetable
  - requests, if any, for investment preparation funding
- **7.** A summary of the required consulting services is presented in Table 1. Detailed terms of reference for individual specialists is presented below:

**Table 1: Summary of Consulting Services Requirement** 

ı u		C. V.OCO	toquii oillolli
	International Specialists		Months
1.	Team Leader/Energy Specialist		3
2.	Rural Electrification Specialist		3
3.	Private Sector Development Specialis	st	1
		Total	7
	National Specialists		
1.	Renewable Energy Specialist		4
2.	CAD Draftperson		2
		Total	6

- 8. **Team Leader/Energy Planning Specialist** (International, 3 person-months). The energy planning specialist will have a minimum of 15 years demonstrated experience in design and implementation of national energy plans and a range of renewable energy projects, including in developing countries. The team leader will be responsible for managing the Consultant team and coordinating the overall project implementation as well as all reporting activities, and liaison with stakeholders. The team leader will be supported by the national renewable energy specialist (4 person-months). The team leader will undertake the following scope of works:
  - (i) review available background data.
  - (ii) prepare the country analysis and the overview of the energy sector.
  - (iii) prepare and implement a consultation and participation plan.
  - (iv) liaise closely with main stakeholders.
  - (v) prepare the detailed work program and implementation schedule for the technical assistance.
  - (vi) coordinate preparation of the deliverables by the consulting team.

- (vii) assess capacity of the main implementing agencies, including SIEA, MMERE, NGO's and private sector to implement renewable energy projects, considering human resource capacity and financial constraints.
- (viii) identify relevant databases suitable for analysis of energy sector. Work closely with the GIS specialist to analyze data, including preparation of relevant plans showing location of potential renewable energy based developments.
- (ix) working closely with the rural electrification and private sector specialist, prepare the Renewable Energy Investment Plan and the SREP project proposals.
- (x) assess lessons learnt from previous renewable energy projects.
- (xi) assess the key barriers hindering the development of renewable energy.
- (xii) undertake consultation workshops.
- (xiii) assess renewable energy options, including technical suitability (given resource availability and capacity constraints), and cost of generation of various options. Analysis will include (a) grid connected generation, (b) standalone new mini-grids, and (c) household based generation.
- (xiv) prepare the national renewable energy investment plan, and SREP project proposals.
- 9. **Rural Electrification Specialist** (international, 3 person-months). The rural electrification specialist will have a minimum of 15 years demonstrated experience in design and implementation of rural electrification projects, including in developing countries. The specialists work will be focused on grid extensions from existing SIEA out-stations, standalone new minigrids, and household based generation. The specialist will undertake the following tasks:
  - (i) review available background data related to rural electrification.
  - (ii) prepare relevant sections of the country analysis and the overview of the energy sector.
  - (iii) assess capacity of the main implementing agencies, including SIEA, MMERE, Ministry of Rural Development, NGO's and private sector to implement rural electrification renewable energy projects, considering human resource capacity and financial constraints.
  - (iv) work closely with the GIS specialist to analyze demographic and household survey data (and other relevant data) related to rural electrification.
  - (v) assist in preparing the rural electrification sections of the Renewable Energy Investment Plan and the SREP project proposals.
  - (vi) assess lessons learnt from previous rural electrification renewable energy projects.
  - (vii) assess the key barriers hindering the development of renewable energy for rural electrification.
  - (viii) assess renewable energy options for rural electrification.
  - (ix) assist in preparation of the rural electrification components of the national renewable energy investment plan, and SREP project proposals.
- 10. **Private Sector Development Specialist** (international, 1 person-month). The specialist will have a minimum of 15 years experience in developing private sector, including private sector investment in infrastructure in developing countries. The specialist will develop options for private sector involvement in the renewable energy sector, including:
  - (i) assess relevant background data for assessment of the potential for private sector engagement in the private sector.

- (ii) assess historical, existing and proposed engagement of the private sector in the development of renewable energy projects. Review lessons learned in Solomon Islands from the Sustainable Energy Financing Project (SEFP), community owned micro-hydro projects and other projects.
- (iii) identify barriers for engagement of the private sector in provision of renewable energy, including regulatory framework, political risk, land acquisition risks, financing barriers, etc. Draw on other assessments, including the 2006 "Review of Solomon Islands Electricity Act and Rural Electrification Framework".
- (iv) assess capacity of local contractors to bid for equipment and civil works contracts.
- (v) assess options for introduction of independent power producers, operation and maintenance contracts and long term equipment maintenance agreements for development, operation and maintenance of renewable energy projects.
- (vi) identify appropriate business models which may be applicable.
- (vii) prepare an initial evaluation of the capacity of the local banking sector to evaluate and finance renewable energy projects via discussions with key commercial banks.
- (viii) assess potential for accessing less-formal community-level financing options for solar panels/lanterns or similar off-grid equipment, especially in rural areas. Identify and summarize access to financing barriers for leveraging private sector and MDB co-financing of future SREP projects.
- (ix) summarize structural, regulatory, technical, and/or financial barriers currently limiting engagement with the private sector (on-grid and off-grid solutions).
- (x) based on this barrier/risk analysis and further consultation with local government and other stakeholders, identify the top 2-3 barriers that SREP can practically address to facilitate and sustain private sector intervention in the local renewable energy sector.
- (xi) assist in preparation of the private sector components of the national renewable energy investment plan, and SREP project proposals.
- 11. Computer Aided Drafting (CAD) and Geographic Information Systems (GIS) Specialist (national, 2 person-months). The CAD-GIS specialist will have a minimum of 15 years demonstrated experience. The CAD-GIS specialist will work closely with the team leader and the rural electrification specialist to prepare provincial level drawings of suitable demographic and household data to assist in the preparation of the Renewable Energy Investment Plan. Other relevant data will also be detailed if available, such as resource data, land use activity and infrastructure.

# Appendix C Solomon Islands Development Partner Activity Matrix - Renewable Energy August 2012

Development Partner	Project	Details and Status
European Investment Bank	Tina River Hydropower Project	<ul> <li>TA provided to fund Feasibility Study. Aims to substitute a large part of Honiara's diesel generation with hydropower. Phase 2 Feasibility Study completed end May 2012. Follow-on study required to investigate alternative dam location approximately 600m upstream due to adverse results from geotechnical investigations at original Phase 2 dam site. Capacity: 15 MW producing 50-75 GWh/year. Proposed structure is IPP BOO, selling to SIEA (state-owned utility).</li> <li>Potential financing support for IPP</li> </ul>
IFC	Tina River Hydropower Project	Transaction Advisors to Solomon Islands     Government
Government of Israel	Household Solar Systems	
Government of Italy	Solar PV Systems for schools and health clinics	
Government of Turkey	Solar PV Systems for schools and health clinics	
World Bank	Sustainable Energy Financing Partnership (SEFP)	<ul> <li>Regional small loan program offering concessional lending through local banking institutions targeting household renewable energy. GEF financed, with AusAID co-financing.</li> </ul>
	Solomon Islands Sustainable Energy Project (SISEP)	<ul> <li>Utility reform at Solomon Islands Electricity Authority. Aims to improve management, commercialize utility, and improve efficiency. Includes capital investments to improve power system reliability. IDA financed.</li> <li>Project restructured in 2012, including: a) extension of project closing date from 30 Dec 2012 to 30 June 2014; b) Community Based Renewable Energy Project.</li> </ul>
	Tina River Hydropower Project	<ul> <li>Supervising preparation of the Tina River Hydropower Project, including: a) operations of the Project Office (within MMRE); b) preparation of the Feasibility Study and Environmental &amp; Social Safeguards work. (n.b. EIB is funding feasibility study and IFC is acting as transaction advisors to government).</li> <li>Assessing options for providing a partial credit risk guarantee on the IPP power purchase agreement</li> <li>AusAID financed through PRIF</li> </ul>
Asian Development Bank	RETA 7329: Promoting Access to Renewable Energy	<ul> <li>Grant financed a coconut oil (CNO) demonstration plant (new generator, conditioning unit, CNO upply contract) and extended distribution grid at Auki, Malaita in 2011. Equipment installed and operating. Trial ongoing.</li> <li>Prepared 5 feasibility studies for small scale hydro at Lata, Taro, Auki, Afio, Ringgi and 5 feasibility studies for CNO at Auki, Lata, Kira Kira, Noro &amp; Taro.</li> </ul>
	Outer Island Renewable Energy	<ul> <li>Proposed 2012 PPTA and 2013 ADF loan/grant</li> </ul>

	Development Project  RETA 7394: Strengthening the Capacity of Pacific DMCs to Respond to Climate Change	<ul> <li>project to upscale small hydropower supply to regional urban centers.</li> <li>Provided support to establish the Designated National Authority (DNA) for the Clean Development Mechanism in Solomon Islands. DNA in place and approved by the UNFCCC in 2011.</li> </ul>
IUCN	Home solar PV systems 750W solar PV System for Tetepare conservation island	<ol> <li>Installation of solar PV home systems in a rural community – Nahu in East Areare, Malaita</li> <li>Installation of a 750W solar PV system on Tetepare conservation island to provide power for the eco-lodge and Administration block.</li> </ol>
UNDP	Wind resource monitoring  Solar PV to power ICT  equipment in provincial centres	<ul> <li>Via PIGGAREP support for wind monitoring in Kirakira, Buala, Rennel and Taro.</li> <li>Via SIDS DOCK/PIGGAREP support has been requested for solar PV to provide power to ICT equipment for several provincial government centers.</li> </ul>
AusAID	Tina River Hydro	<ul> <li>Funding for WBG implemented Tina River Hydro Project, supporting development and implementation, AUD \$4M in 2009/10 – 2011/12.</li> <li>Funding to IFC for Tina River Hydro Project Advisory Services AUD \$1.305M, 2009/10.</li> </ul>
PIFS	Household Solar PV systems	Through the Pacific Environment Community (PEC) Fund, Solomon Islands is currently implementing its PEC Fund project titled "Carbon Abatement via Solar Home Systems in Rural Areas" with a budget of US \$3,998,018. The project involves the installation of 2,000 solar home systems and is being implemented by the Department of Energy, Ministry of Mines, Energy and Rural Electrification.

## Appendix D Solomon Island Renewable Energy References

1.	Hydro-Tasmania Consulting, Huro Mini-Hydropower Scheme, Draft Feasibility Study	MMERE	February 2010
2.	Peter Lynch, Micro-hydroelectricity in Solomon Islands – Current Status	Conference paper	October 2010
3.	Ridgway, Review of Solomon Island Electricity Authority Base Tariff, Final Report	SOPAC	July 2007
4.	National Development Strategy 2011-2020	Ministry of Development Planning and Aid Coordination	July 2011
5.	National Energy Policy Framework	Energy Division, Ministry of Mines and Energy	2007
6.	Maunsell, "Review of Solomon Islands Electricity Act and Rural Electrification Framework"	PIEPSAP	November 2006
7.	GHD, RETA 7329: Promoting Access to Renewable Energy in the Pacific, Solomon Islands Coconut Oil as a Fuel Substitute, Pre-feasibility Studies	ADB	January 2011
8.	GHD, RETA 7329: Promoting Access to Renewable Energy in the Pacific, Solomon Islands Mini-hydro Pre-feasibility Studies	ADB	February 2012
9.	Master Plan Study of Power Development in Solomon Islands, Draft Final Report	JICA	2000
10.	Pacific Regional Energy Assessment; Solomon Islands	PIREP	2004
11.	SKM, Solomon Islands Proposed Power Sector Projects - Outer Islands Generation and Rural Electrification Components, Feasibility Study Report - Renewable Energy Projects - Generation, Transmission and Distribution Components (Volume 1 and 2)	World Bank	June 2007
12.	Press Release (16th February 2010). "First SIG funded micro-hydro scheme commissioned Masupa Micro-hydropower Project Phase 1 – 40KW & Freezer/Ice-Making/Cold Storage Room." Ministry of Mines, Energy & Rural Electrification (MMERE).	Energy Division, Ministry of Mines and Energy	Feb 2010
13.	"Solomon Islands Growth Prospects: Constraints and Policy Priorities", Discussion Note	World Bank	Oct 2010
14.	SIG Ministry of Energy, Water & Mineral Resources 1996, "Solomon Islands Rural Electrification Policy", Prepared by Energy Division/Mini Hydro Resource Centre, Under the Assistance of the the GTZ/SI Ministry of Energy Joint Programme: "Improvement of Rural Electricity Supplies in the Solomon Islands", Honiara, January 1996	Energy Division, Ministry of Mines and Energy	Jan 1996
15.	UNIDO "Prefeasibility studies of hydropower in the Solomon Islands and Recommendations on Priorities", Draft Final Report, July 1986	UNIDO	July 1986
16.	UNDP "Energy & Poverty in the Pacific Island Countries: Challenges and the Way Forward" Regional Energy Programme for Poverty Reduction, UNDP Regional Centre, Bangkok	UNDP	2007
17.	UNDP "Towards an 'Energy Plus' Approach for the Poor: A review of good practices and lessons learned from Asia and the Pacific" <a href="http://www.snap-undp.org/elibrary/Publication.aspx?id=600">http://www.snap-undp.org/elibrary/Publication.aspx?id=600</a>	UNDP	2012
18.	UNDP "Towards an 'Energy Plus' approach for the poor: An agenda for action for Asia and the Pacific" http://www.snap-undp.org/elibrary/Publication.aspx?id=619	UNDP	2012
19.	Solomon Islands Census 2009	SI Statistics	2011

<u>spx</u>	
Solomon Islands Household Income and Expenditure Survey	SI Statistics 2006
2005/2006	Office
http://www.spc.int/prism/country/sb/stats/Publication/Annual/HIES-	
Report.htm	
Renewable Energy Toolkit (REToolkit)	World Bank
http://go.worldbank.org/SNXJELEZE0	
"Solomon Islands: Issues and Options in the Energy Sector", Pacific	World Bank, 1992
Regional Energy Assessment (PREA), Vol. 9.	UNDP, ESMAP
(URL http://go.worldbank.org/QSM4TX5ZU0)	
"Wind Energy Resource Atlas for the Pacific Islands and South East	World Bank & 2009
Asia" http://go.worldbank.org/Z94R7D9VV0	ASTAE
"Islands Solar and Wind Energy Resource Atlas for Solomon Islands"	Solar and Wind
http://en.openei.org/apps/SWERA/?active=Solomon	Energy
	Resource
	Assessment
	(SWERA)
"Solomon Islands: Energy Resources",	Open Energy
From Open Energy Information	Information
http://en.openei.org/wiki/Solomon_Islands	
	Solomon Islands Household Income and Expenditure Survey 2005/2006 http://www.spc.int/prism/country/sb/stats/Publication/Annual/HIES-Report.htm  Renewable Energy Toolkit (REToolkit) http://go.worldbank.org/SNXJELEZE0  "Solomon Islands: Issues and Options in the Energy Sector", Pacific Regional Energy Assessment (PREA), Vol. 9. (URL http://go.worldbank.org/QSM4TX5ZU0)  "Wind Energy Resource Atlas for the Pacific Islands and South East Asia" http://go.worldbank.org/Z94R7D9VV0  "Islands Solar and Wind Energy Resource Atlas for Solomon Islands" http://en.openei.org/apps/SWERA/?active=Solomon  "Solomon Islands: Energy Resources", From Open Energy Information

ADB: Asian Development Bank, MMERE: Ministry of Mines, Energy and Rural Electrification, PIEPSAP: Pacific Island Energy Policy and Strategic Action Planning, PIREP: Pacific Island Renewable Energy Project, SOPAC: Pacific Island Applied Geoscience; UNDP: United Nations Development Programme; UNIDO: United Nations Industrial Development Organization.



#### SOLOMON ISLANDS GOVERNMENT

Ministry of Finance & Treasury P O Box 26 Honiara, Solomon Islands

Ref: 473/1/3/9/1 Date: Monday 23 July 2012

Robert Guild
Director
Pacific Department
Transport, Energy and Natural Resources Division (PATE)
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines

Dear Director,

RE: Mission Clearance for SOL: Climate Investment Funds: Scaling Up Renewable Energy Program (SREP) Investment Plan Request for Reconnaissance Mission Clearance(13-17 August 2012)

I refer to your correspondence dated July 19, 2012, on a request for a clearance on the proposed SOL: Climate Investment Funds: Scaling Up Renewable Energy Program Investment Plan to be fielded from August 13-17, 2012 and wish to advise that this is acceptable to the Solomon Islands Government.

As part of the proposed mission, we accept the fielding of Mr. Anthony Maxwell and Jiwan Archarya during the period August 13-17, 2012.

We look forward to receiving and working closely with the Mission team.

Yours Sincerely,

RAW (SREP)

Barnabas Vote

For: Permanent Secretary Ministry of Finance & Treasury

Telephone: (677) 21058

and the period

and wish to advise

h (SREP)

a investmen

rish to advise

ing the period

Facsimile: (677) 27855

(SREP)

#### Appendix F: Preliminary List of Stakeholders

#### I. Development Partners

- 1. European Union
- 2. Government of Australia
- 3. Government of New Zealand
- 4. Government of Italy
- 5. Government of Turkey
- 6. Government of Denmark through SIDS DOCK (UNDP)
- 7. Government of Republic of China (Taiwan)
- 8. Government of Japan

#### II. Civil society:

- 1. World Vision
- 2. Rokota'anikeni Women's Association
- 3. Anglican Church's Mother's Union Group
- 4. Oxfam
- 5. Tetepare Island Descendants' Association
- 6. Various Community-based Associations and savings' clubs around the country
- 7. Various Environment Conservation Associations around the country
- 8. Various women's groups around the country
- 9. ADRA Solomon Islands
- 10. Various church groups around the country

#### III. Private Sector:

- 1. Guadalcanal Plains Palm Oil Ltd (GPPOL)
- 2. Solomon Islands Chamber of Commerce
- 3. BJS Group of companies
- 4. Solomon Islands Electricity Authority (State-owned Utility)
- 5. Pelena Energy (SI Ltd)
- 6. SKM
- 7. Varivao Holdings Ltd
- 8. Gold Ridge Mining Ltd
- 9. Sumitomo Metal Mining (Solomons) Ltd
- 10. Kolombangara Forest Plantations Ltd
- 11. Eagon Pacific Plantation Co. Ltd
- 12. Soltai Fishing & Processing Ltd
- 13. National Fisheries Development Ltd
- 14. Kokonut Pacific (SI) Ltd
- 15. South Pacific Oil Ltd
- 16. Energy Origin