

**Meeting of SREP Pilot Countries
October 30, 2012 - Istanbul, Turkey**

SREP Progress Updates - New Pilots and Reserve List Countries

Country: SOLOMON ISLANDS

Scoping/joint mission date: 13th – 17th August 2012

What is the status of renewable energy in your country, and what are the challenges for scaling up?

RE Status:

Almost 100% of electricity generation by the country's power utility is diesel-based generation except for two stations (Buala & Malu'u) that operate using micro-hydro technology with installed capacities of 0.15MW and 0.04MW respectively. Currently, these two stations are not operating with Buala hydro needing repairs while Malu'u hydro station was closed by landowners of water source demanding the Government to make payment for use of their water source. The utility hopes to repair the Buala scheme while the situation at Malu'u is currently addressed by the Government by pursuing land acquisition of the water source and to have in place a Land Lease Agreement with the landowners to lease the land water source (spring source) is located and to make appropriate benefit and compensation payments.

The utility is using coconut oil for biofuel trial at Auki power station with a generator with capacity 300kW using CNO/diesel blend since 2011.

There are 7 rural community-based micro-hydro schemes installed over the years with installed capacities ranging from 10kW to 50kW.

Solar-home-systems are being used by a number of rural villagers with some rural-based schools and clinics using solar PV systems for lighting and refrigeration for preservation of medicines.

Two of the country's telecommunication companies use solar PV to power their towers located in remote rural areas.

The country's Maritime services use solar PV for light-houses located around the country for use by mariners for navigation purposes.

Plans ahead:

1. Preparation for the development of Tina River Hydropower Scheme (20MW) is on-going for provision of energy for Honiara. This is planned for IPP approach.
2. Preparation for development of small hydro schemes to replace diesel use in 5 power stations in the outer islands that are operated by the utility. The installed capacity ranges from 100kW

– 4000kW.

3. The Government has recently launched a pilot user-pay solar-home-system targeting 2000 rural households to be powered by 125W system each with services provided by RESCOs contracted by the Government to install & service the systems over a 2-years period. Upon success of the pilot project, the Government hopes to up-scale the project to increase access to electricity by the country's rural population.
4. The Government will soon install 4 wind speed monitoring towers at certain locations within the country to collect wind speed data.
5. Kentor Energy Pty Ltd (private company from Australia) is currently conducting geo-physical studies on Savo Is (off-shore of Honiara – Capital City) to determine viability to conduct a Feasibility Study to find out the potential in harnessing the geothermal resources on the island for eventual supply into the Honiara grid via submarine cable.

Challenges:

- Land issues for large hydro-power development, geothermal or wind/solar farms as 85% of land in the country is customarily-owned which needs land acquisition by the Government;
- Finance;
- Geographical nature of the country – the country is made up of islands and the main energy demand load might be located far from potential hydro or geothermal sites;
- Lack of sufficient hydrological & geological data for potential RE or geothermal sites
- Lack of legislation changes to attract private sector into the electricity industry
- Lack of regulatory institutional structure to regulate the electricity industry in terms of pricing etc
- Lack of policy framework for RE development and PPA framework to encourage private investment
- Lack of capacity in renewable energy technology
- Lack of National Energy Balance Data-base

What are your country's main achievements and opportunities in the areas of renewable energy?

Main Achievements:

- The country's achievement in RE development has been very low. The number of households in the country that are connected to electricity grid is only 12-14% and currently the grid system operated by the national power utility is 100% diesel-fuel dependent.
- Preparation work on development of large & small hydropower scheme to substitute diesel-use by the national power utility is currently on-going. On the Tina River Hydropower scheme project, the preparation work involves legislation/regulation up-dates to accommodate emergence IPPs into the electricity industry of the country.

Opportunities:

1. Only 12-14% of the country's household have access to electricity via national grid;
2. RE resources is abundant with :
 - a. 320MW total hydro-power potential capacity,
 - b. > 20MW geothermal resources,
 - c. Solar energy resource- average annual insolation of 6,600 MJ per m² of horizontal surface observed at the Guadalcanal airport (1987-89). NASA data indicates 5

- kWh/m² or more, a good solar resource,
- d. Abundant biomass resource with copra production in the mid 1980s exceeding 40,000 tonnes, enough to produce about 30 ML of coconut oil, equivalent to 28 ML of distillate.
3. Good Foreign Investment environment especially with new Companies Act.

What are the preliminary outlines of your SREP investment plan, in terms of technologies, financing sources and instruments, enabling environment activities (policies, regulatory framework, etc), and/or capacity building?

Although our SREP Investment Plan is yet to be formulated, the preliminary outline would include:

1. RE Technology – hydropower, geothermal, biomass/bio-fuel, solar and probably wind depending on the outcome of wind monitoring exercise soon to be undertaken by our Ministry of Mines, Energy & Rural Electrification.
2. Financing source – Government financing, Grant Aid, Loans via multi-lateral financial institutions, commercial banks, micro-financing.
3. Enabling environments – framework formulation in terms of policy, regulatory, legal and institutional aspects.
4. Capacity building – strengthening of management and technical capacities nationally.
5. Formulation of national energy balance data-base.