MONITORING REPORT

6.5 MW Wainikasou Small Hydro Plant and the 3 MW Vaturu small hydro Plant
both located on Viti Levu, Fiji and bundled as a single CDM Project

Monitoring Period: 1 June 2004 to 31 October 2006

The project was implemented by
Sustainable Energy Limited (SEL)
2 Marlow Street, Suva, Fiji.
A Joint Venture between Fiji electricity Authority and Pacific Hydro Pty Ltd

1) Introduction

a) The project consists of a 6.5 MW small hydro facility in central Viti Levu, Fiji and a 3MW small hydro facility in Sabeto, Nadi Provence, about 20 km from Nadi Town, to provide renewable energy to the main Fiji island of Viti Levu.

b) This document reports the Emission Reductions (ERs) for the project for the period: 1 June 2004 (start date of the first crediting period) to 31 October 2006.

2) Project Information

a) The project activity is generation of electricity for the Fiji Electricity Authority grid system.

b) Wainikasou utilizes the hydro potential available from Wainikasevulu Creek in the central highlands of Fiji.

c) Vaturu power station is located at Nadago water treatment plant and utilises the potential from water prior to it being fed into the treatment plant.

d) The Wainikasou site commenced operation in June 2004.

e) The Vaturu site commenced operation in February 2006

f) The project consisting of both sites was registered with CDM Executive Board on 1 October 2005.

g) Registration Number is 0089

h) The company has maintained records for the energy fed to the Fiji grid system.

i) The monitoring equipment includes energy meters that monitor the energy fed by the plant to the Fiji grid system.

j) The metering system is maintained and calibrated by Fiji electricity Authority.

k) Monitoring Period: 1 June 2004 (start date of the first crediting period) to 31 October 2006.

3) ER Calculation Formula

a) This project falls under the simplified baseline monitoring methodology outlined under section 1D “Grid connected renewable energy generation” of the CDM document titled; “Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories”.

b) The formula for the production of electricity EGy (MWh/ year) for emission reduction calculation in any year (y) under section 1D is; EGy = TEy - WTEy, where:

i) TEy = the actual electricity produced in year y in the plant (all units).

ii) WTEy = the electricity that would have been produced by the units installed before the project under the hydrological conditions of year y.

c) For Wainikasou and Vaturu, WTEy = 0.

d) For Wainikasou and Vaturu, EGy is therefore equal to the actual metered production of electricity for the reporting year.

e) Emission Factor as per the baseline adopted = 0.656 tCO_2/MWh.

f) Energy Exported from 1 June 2004 to 31 October 2006 = 39,210.29 MWh.

g) Emission Reductions for 1 June 2004 to 31 October 2006 = 0.656 x 39,210.29 = 25,721.95 tCO_2.

4) Summary of records and data

WAINIKASAU HYDROPOWER STATION

Year	Billing Month	Days	Energy Export (kWh)			Energy Import (kWh)			Net Electricity Export to Grid (MWh)	Meter Number
			Initial Reading	Final Reading	Total Export	Initial Reading	Final Reading	Total Import		
2004	June	30	83,160	584,020	500,860	5,770	7,360	1,590	499.27	HM00016
	July	23	584,020	1,013,220	429,200	7,360	8,130	770	428.43	HM00016
	July	8	17,940	465,980	448,040	-	130	130	447.91	HM00003
	August	31	465,980	870,980	405,000	130	430	300	404.70	HM00003
	September	30	870,980	1,650,570	779,590	430	720	290	779.30	HM00003
	October	31	1,650,570	2,318,430	667,860	720	1,950	1,230	666.63	HM00003
	November	30	2,318,430	3,290,000	971,570	1,950	2,190	240	971.33	HM00003
	December	31	3,290,000	3,853,790	563,790	2,190	2,760	570	563.22	HM00003
2005	January	31	3,853,790	5,134,210	1,280,420	2,760	3,400	640	1,279.78	HM00003
	February	28	5,134,210	6,228,890	1,094,680	3,400	3,620	220	1,094.46	HM00003
	March	31	6,228,890	7,375,350	1,146,460	3,620	3,860	240	1,146.22	HM00003
	April	30	7,375,350	9,812,720	2,437,370	3,860	3,940	80	2,437.29	HM00003
	May	31	9,812,720	10,597,150	784,430	3,940	4,090	150	784.28	HM00003
	June	30	10,597,150	11,453,010	855,860	4,090	4,280	190	855.67	HM00003
	July	31	11,453,010	12,073,920	620,910	4,280	4,500	220	620.69	HM00003
	August	31	12,073,920	12,572,770	498,850	4,500	4,700	200	498.65	HM00003
	September	30	12,572,770	13,726,070	1,153,300	4,700	4,830	130	1,153.17	HM00003
	October	31	13,726,070	14,864,960	1,138,890	4,830	5,050	220	1,138.67	HM00003
	November	30	14,864,960	17,352,804	2,487,844	5,050	5,160	110	2,487.73	HM00003
	December	31	17,352,804	19,005,990	1,653,186	5,160	5,380	220	1,652.97	HM00003
2006	January	31	19,005,990	20,889,300	1,883,310	5,380	5,450	70	1,883.24	HM00003
	February	28	20,889,300	23,306,420	2,417,120	5,450	5,490	40	2,417.08	HM00003
	March	31	23,306,420	25,174,800	1,868,380	5,490	5,550	60	1,868.32	HM00003
	April	30	25,174,800	26,552,770	1,377,970	5,550	5,660	110	1,377.86	HM00003
	May	31	26,552,770	27,484,590	931,820	5,660	5,790	130	931.69	HM00003
	June	30	27,484,590	28,510,410	1,025,820	5,790	6,000	210	1,025.61	HM00003
	July	31	28,510,410	29,047,240	536,830	6,000	6,270	270	536.56	HM00003
	August	31	29,047,240	30,098,810	1,051,570	6,270	6,360	90	1,051.48	HM00003
	September	30	30,098,810	31,054,450	955,640	6,360	6,630	270	955.37	HM00003
	October	31	31,054,450	33,462,400	2,407,950	6,630	6,680	50	2,407.90	HM00003
					34,374,520			**9,040**	**34,365.48**	

VATURU HYDROPOWER STATION AT NADAGO

Year	Billing Month	Days	Energy Export (kWh)			Energy Import (kWh)			Net Electricity Export to Grid (MWh)	Meter Number
			Initial Reading	Final Reading	Total Export	Initial Reading	Final Reading	Total Import		
2006	February	28	-	54,780	54,780	9,991	10,992	1,001	53.78	HM00023
	March	31	54,780	54,780	-	10,992	12,231	1,239	- 1.24	HM00023
	April	30	54,780	587,500	532,720	12,231	13,052	821	531.90	HM00023
	May	31	587,500	1,269,020	681,520	13,052	13,810	758	680.76	HM00023
	June	30	1,269,020	1,926,850	657,830	13,810	14,507	697	657.13	HM00023
	July	31	1,926,850	2,585,980	659,130	14,507	15,235	728	658.40	HM00023
	August	31	2,585,980	3,297,280	711,300	15,235	15,841	606	710.69	HM00023
	September	30	3,297,280	3,826,870	529,590	15,841	16,750	909	528.68	HM00023
	October	31	3,826,870	4,852,790	1,025,920	16,750	17,967	1,217	1,024.70	HM00023
					4,852,790			**7,976**	**4,845**	

5) Measures to reduce uncertainty in the Monitoring Report

a) The data is recorded at the power station sites and the power is dispatched from FEA's Master Control Centre.

b) The energy is measured using calibrated meters

c) Sales of energy may be compared as an alternative proof of the power exported to the grid.