



INSTALLATION REPORT

Site name: **Majkin Elementary School**

Atoll: **Namu**

Beneficiary: **Ministry of Education**

PV System Rating: **6.12kWp** System DC Voltage (nom.): **48V** AC output: **110V / 60 Hz**

GPS site coordinates:

Installation dates: November, 14 to 27th, 2009

PV system Commissioning date: Nov. 27th. 2009

Contracted installer: **Marshall's Energy Company**

Equipment supplied by: **I.F.E.**

- **Solar Charge Controllers**

Make	Model	Qty	Serial numbers	Rating per unit
OutBack Power Systems	FLEXmax 80	2	FM8001439 FM8001430	80 Amp continuous at 40°C ambient

- **Charge Controller Set points**

	V _{PC}	V _{SYSTEM}	Duration	Interval
Float	2.30 V	55.2 V	N/A	N/A
Absorb	2.46 V	59 V	60 minutes	N/A
Equalisation	2.5 V	60 V	1 hour	30 days

- **Inverters**

Make	Model	Qty	Serial numbers	Rating per unit
SMA	Sunny Island SI 5048U	2	Master 1260002564A Slave 1260002764B2	Continuous output at 45°C: 4000W

- **Battery Bank**

Make	Model	Qty	Serial numbers	Rating per unit
Exide France	Opzs Solar 3100 NVSL023100DCOFA	24	N/A	2100 Ah at C 20

- PV Modules**

Make	Model	Qty	Serial numbers	Rating per unit
Conergy	SC 170 MA	36	See below	170 W at STC

ID#	String#	Serial Number	ID#	String#	Serial Number
1	1	SF1605M0810AN0010	19	7	SF1605M0810AN0137
2	1	SF1605M0810AN0399	20	7	SF1605M0810AN0205
3	1	SF1605M0810AN0127	21	7	SF1605M0810AN0073
4	2	SF1605M0810AN0170	22	8	SF1605M0810AN0003
5	2	SF1605M0810AN0107	23	8	SF1605M0810AN0057
6	2	SF1605M0810AN0228	24	8	SF1605M0810AN0379
7	3	SF1605M0810AO0435	25	9	SF1605M0810AN0368
8	3	SF1605M0810AO0058	26	9	SF1605M0810AN0167
9	3		27	9	SF1605M0810AN0011
10	4	SF1605M0810AN0241	28	10	SF1605M0810AN0118
11	4	SF1605M0810AN0356	29	10	SF1605M0810AN0004
12	4	SF1605M0810AN0086	30	10	SF1605M0810AN0288
13	5	SF1605M0810AN0357	31	11	SF1605M0810AN0444
14	5	SF1605M0810AN0140	32	11	SF1605M0810AN0245
15	5	SF1605M0810AN0041	33	11	SF1605M0810AN0138
16	6	SF1605M0810AN0196	34	12	SF1605M0810AN0160
17	6	SF1605M0810AN0113	35	12	SF1605M0810AN0235
18	6	SF1605M0810AN0129	36	12	SF1605M0810AN0248

WEST	#6 /2	#12 /4	#18 /6	#24 /8	#30/10	#36 /12	EAST
	#5 /2	#11 /4	#17 /6	#23 /8	#29/10	#35 /12	
	#4 /2	#10 /4	#16 /6	#22 /8	#28/10	#34 /12	
	#3 /1	#9 /3	#15 /5	#21 /7	#27 /9	#33 /11	
	#2 /1	#8 /3	#14 /5	#20 /7	#26 /9	#32 /11	
	#1 /1	#7 /3	#13 /5	#19 /7	#25 /9	#31 /11	

SOUTH

PV arrangement showing string number and module number in **bold**

● Battery Data:

Nominal Battery Voltage: **48 V**

Nominal Cell Voltage: **2V / cell**

Nominal Battery Acid SG: **1.230**

Volume of acid used: **litres**

The battery bank was charged with the solar system until the chargers indicated a Float condition was reached. The following readings were then taken:

Date: **2009** Time: Temp: **31°C** SOC (as per inverter meter): %

Battery Voltage at time of check:

Battery Readings at Commissioning					
Cell #	Specific Gravity	Cell Voltage	Cell #	Specific Gravity	Cell Voltage
1		2.06	13		2.06
2		2.06	14		2.06
3		2.06	15		2.06
4		2.06	16		2.06
5		2.06	17		2.06
6		2.06	18		2.06
7		2.06	19		2.06
8		2.06	20		2.06
9		2.06	21		2.06
10		2.06	22		2.06
11		2.06	23		2.06
12		2.06	24		2.06

General Notes

Battery reading of 2.06 volts per cell was standard for all cells 24 hours after filling with electrolyte. No charging has occurred before the reading was taken.