

付 属 資 料



REGISTERED PV COMPANIES

List if registered PV Companies as of Thursday, December 09, 1999.

COMPLETE LIST

Inst. = Installer / Ret. = Retailer / Man. = Manufacturer

FULL REGISTRATION				
COMPANY DETAILS	Contact details	Category		
		Inst.	Ret.	Man.
DIG Electrical Services PO Box 113 Ghanzi, Ghanzi District	Nsakalimba, John Tel: 596749 Fax: 596749	X		
Electrical Reticulation Systems PO Box 260 Francistown	Katz, AG Tel: 212732 Fax: 215531	X		
GMS Electronics PBag F179 Francistown	Kgogulski, Z. Tel: 221556	X	X	X
Solahart PO Box 20076 Gaborone	Walker, Ian Tel: 323042 Fax: 324923	X	X	
Solar West PO Box 149 Gaborone	West, Allan Tel: 374597	X	X	X
Sunkist Botswana PO Box 1282 Gaborone	Grant, M. Tel: 312915 Fax: 314557	X	X	X
Omega Electricals PO Box 401866 Gaborone	Vashi, Ajay Tel: 375480 Fax: 314429		X	
Sharps Electrical PO Box 603 Gaborone	Rossi, Claude Tel: 352341 Fax: 351416		X	
Electroflex PO Box 40315 Gaborone	Aarse, Bart Tel: 356660 Fax: 356650		X	X
Technical Systems Private Bag 0055 Gaborone	Akabondo, Joe Tel: 324795 Fax: 324856	X	X	
Keimce Co. Pty Ltd PO Box M568 Kanye	Masoka, H	X		

Temporary list next page.

TEMPORARY REGISTRATION

COMPANY DETAILS	Contact details	Category		
		Inst.	Ret.	Man.
Supreme Aerials P/Bag BR109 Gaborone	Rakola, France Tel: 300461 Fax: 300966	X		
Sharps Electrical Gaborone		X		
Mangana Enterprises PO Box 20573 Mahalapye	Mpati, Bakanuki Gibson	X		
Universal Stores & Services PBag 104 Palapye	Bhattacharyya, Suddhadeb Tel: 422129 Fax: 422138		X	
Madiba Electrical Brigade Private Bag 17 Mahalapye	Kenosi, J. Tel: 410285 Fax: 410383	X		

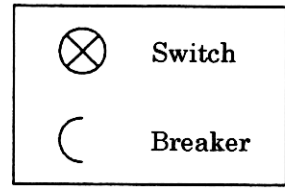
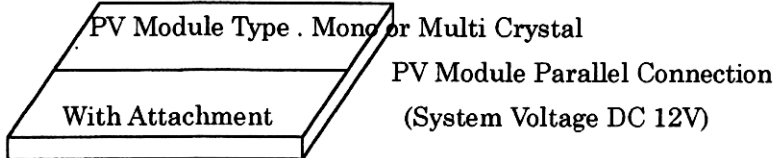
Solar Home System (System Voltage DC12V . Load Output AC220V)

System Design: Gaborone,

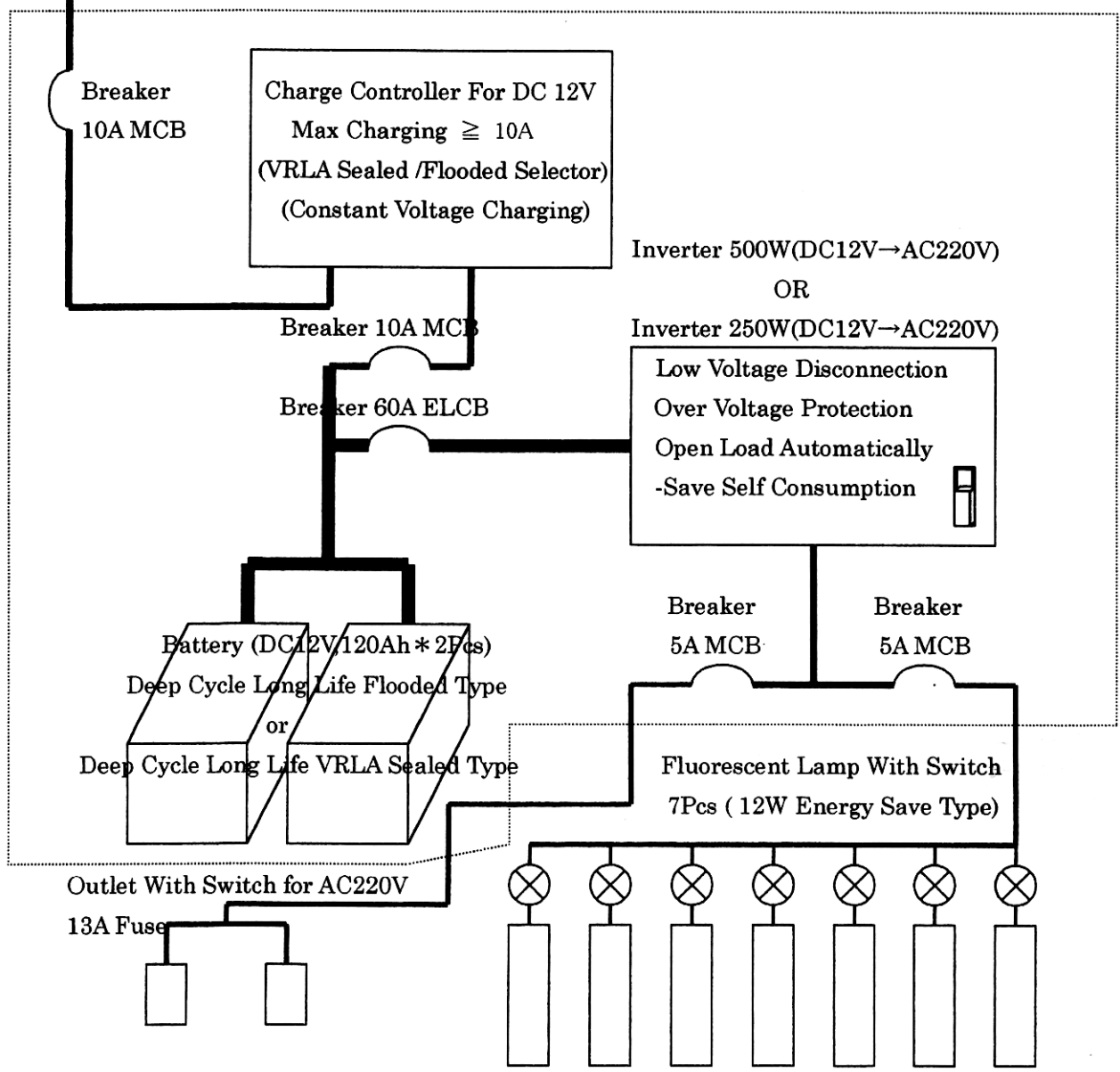
Load Consumption / Day (At PV 110W, Inverter Efficiency 70%~95%)

(Inverter Output AC220V) 1Ah/Day~1.36Ah/Day(TYP)

Solar Module 55W (55W~75W) * 2Pcs

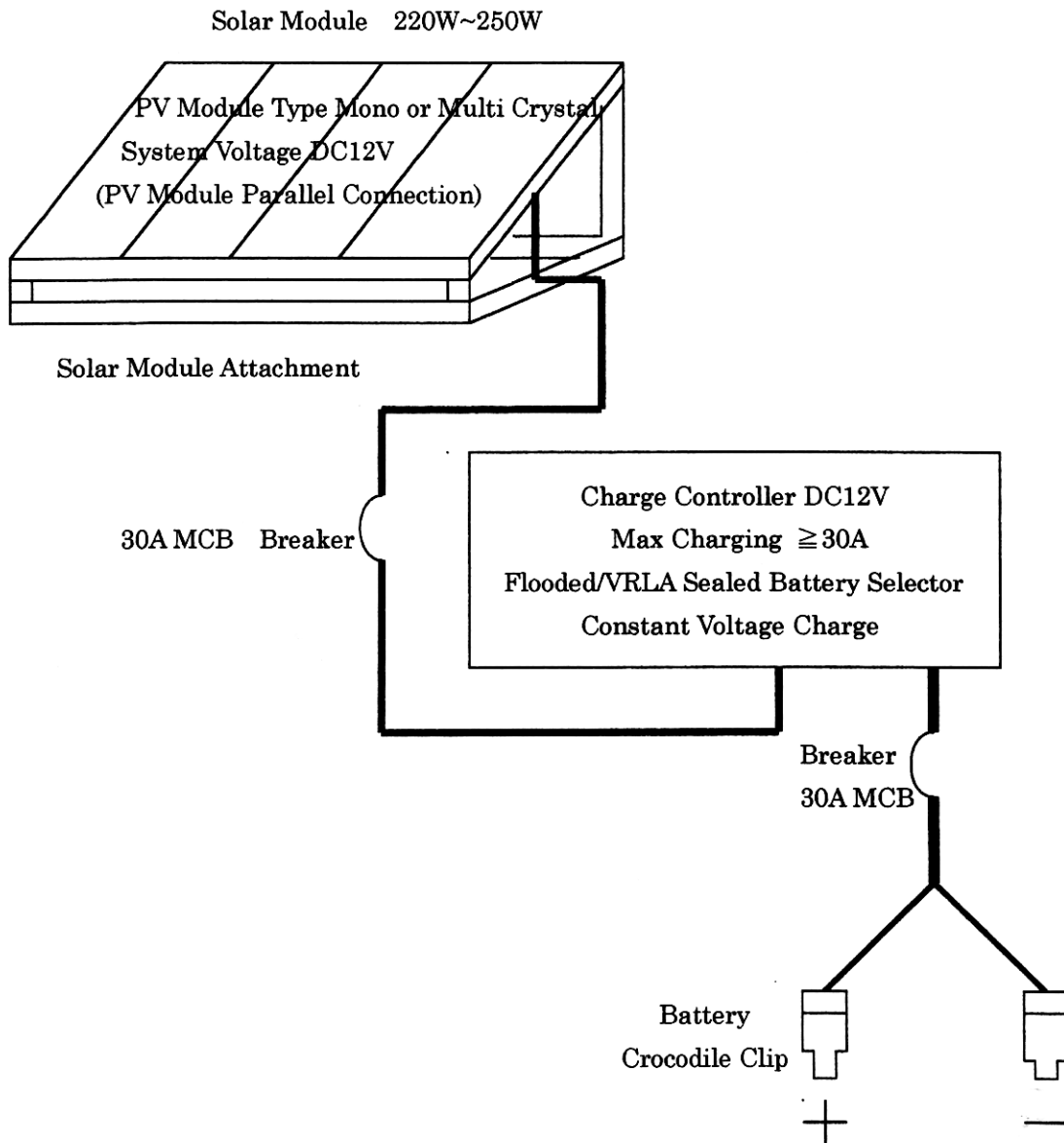


CONTROLLER .INVERTTER AND BATTERY BOX



Solar Battery Charge Station

For Flooded And VRLA Sealed Battery (40Ah~100Ah,DC12V Battery)



Solar Water Pumping System (Hybrid With Engine Generator)

Specification Deep:50m, 0.6 m³/

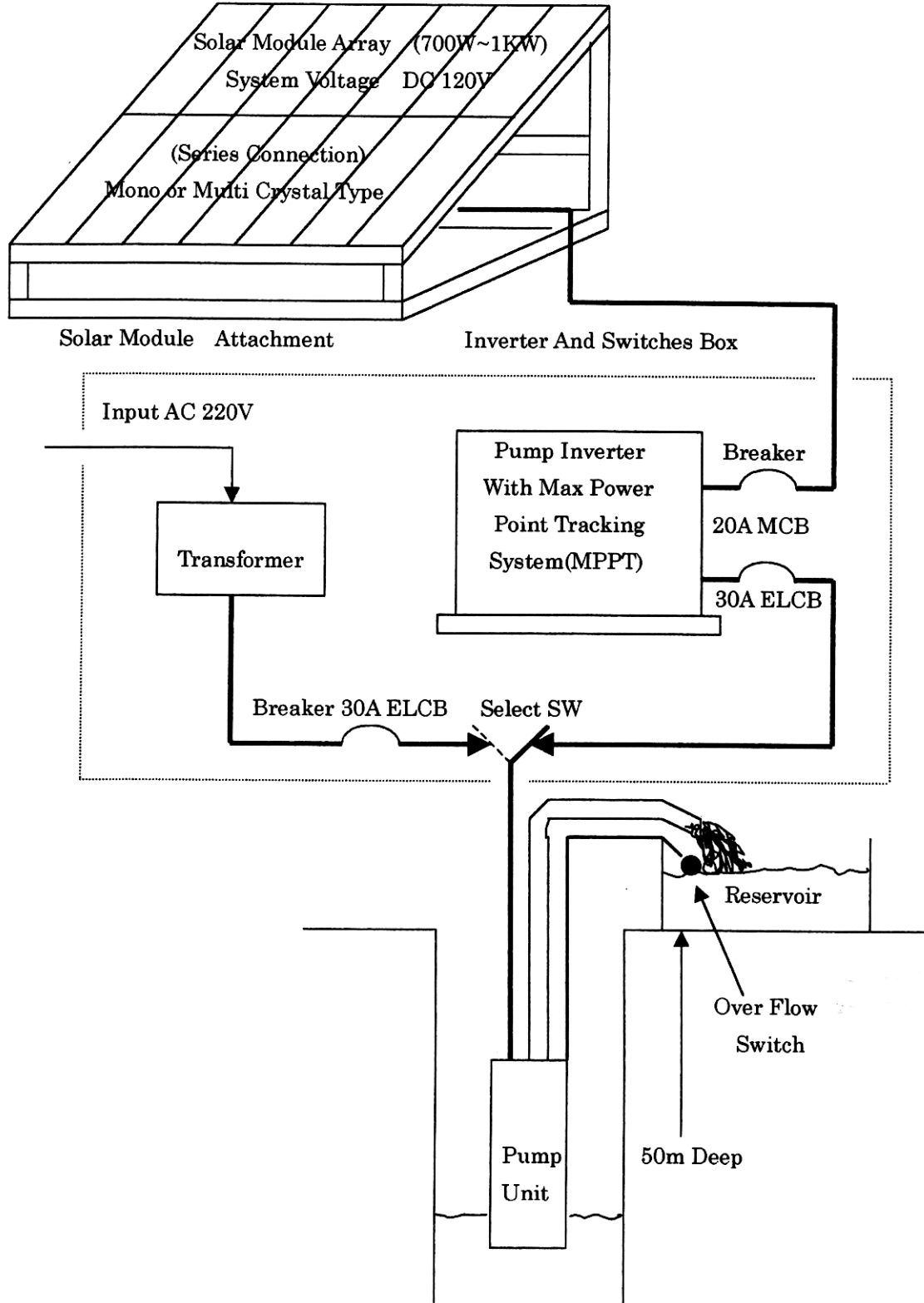


Table 14.1: Proposed Planned Maintenance Programme for PV Systems

Component	1-Monthly	6-Monthly	Responsibility
Module	<ul style="list-style-type: none"> • Clear dust or dirt on panel surface. 		<ul style="list-style-type: none"> • End-User
		<ul style="list-style-type: none"> • Check power output. • Check orientation. • Check rigidity of frame. 	<ul style="list-style-type: none"> • NPVREP
Battery	<ul style="list-style-type: none"> • Check battery status indicators. 	<ul style="list-style-type: none"> • Check battery status indicators. • Check condition of battery boxes. 	<ul style="list-style-type: none"> • End-User • NPVREP
Charge Controller	<ul style="list-style-type: none"> • Regularly observe charge level indicators. 	<ul style="list-style-type: none"> • Tighten up mounting screws. • Check cable connections. • Check ventilation. • Observe charge level indicators. 	<ul style="list-style-type: none"> • End-User • NPVREP
Inverter	<ul style="list-style-type: none"> • Regularly observe charge level indicators. • Remove dust or dirt on heat sink. 	<ul style="list-style-type: none"> • Check Ventilation. • Check Output Voltage. 	<ul style="list-style-type: none"> • End-User • NPVREP
Wiring		<ul style="list-style-type: none"> • Check Earth Leakage. • Check Lightning Arrester/Conductor. 	<ul style="list-style-type: none"> • NPVREP

入手資料リスト

1. 経済社会関係

- STATISTICAL BULLETIN March 1998 Vol.23 No.1, Central Statistic Office, June 1998
- STATISTICAL BULLETIN December 1998 Vol.23 No.4, Central Statistic Office, May 1999
- STATISTICAL BULLETIN March 1999 Vol.24 No.1, Central Statistic Office, August 1999
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1991-2001, Central Statistic Office, April 1997
- NATIONAL COUNCIL ON POPULATION AND DEVELOPMENT, National Population Policy,
Ministry of Finance and Development Planning, August 1997
- DESERTED WIVES AND CHILDREN PROTECTION, Chapter 28:03
- CONTROL OF LIVESTOCK INDUSTRY, Chapter 36:01
- DEVELOPMENT LOAN (BOTSWANA REGISTERED BONDS), Chapter 56:04
- ATMOSPHERIC POLLUTION (PREVENTION), Chapter 65:03
- ANNUAL ECONOMIC REPORT 1998
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- REPORT OF THE FIRST NATIONAL SURVEY ON LITERACY IN BOTSWANA, Central
Statistic Office, June 1997
- MASTER HEALTH FACILITY LIST 1999, Health Statistics Unit, Ministry of Health
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March 1998
- THE WAGE GAP BETWEEN MEN AND WOMEN IN BOTSWANA'S LABOUR MARKET,
Central Statistic Office, July 1999
- TRANSPORT AND COMMUNICATIONS STATISTICS 1996/1997, Central Statistic Office
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August 1999
- REPORT OF THE PRESIDENTIAL COMMISSION OF LAND TENURE, December 1983

2. エネルギー関係

- Evaluation of the Commercial Phase of the Manyana PV Project, February 1998, RIIC
- Evaluation of the National Photovoltaic Rural Electrification Programme (Draft Final Report)
October 1999, EAD & RIIC
- Evaluation of the Rural Electrification Collective Scheme (RCS) - Botswana, May 1999, EAD
- Study to Assess New and Renewable Sources of Energy (NRSE) Training in Technical Schools in
Botswana, Final Report, October 1997, EAD

Botswana Power Corporation Annual Report 1998 & 1999
Tariffs, February 1999, BPC
70 Villages Electrification Project
Village Electrification Programme Database, May 1999
Electrified Villages
Marketing and Electrification Monthly Report, November 1999, BPC
Khakhia Solar Photovoltaic Pilot Project Business Plan, July 1999, BPC
Botswana Power Corporation Department Organogram
Registered PV Companies, December 9, 1999, BOTEC
Conditions of Registration for PV Contractors, October 1998, BOTEC

3. 地図 (Department of Surveys and Lands)

Republic of Botswana, 1: 1,000,000
Republic of Botswana, 1: 1,500,000
Republic of Botswana, 1: 2,000,000
Population in Botswana 1991, 1: 2,000,000
Primary Schools in Botswana, 1: 2,000,000
Secondary Schools in Botswana, 1: 2,000,000
Vegetation Map of the Republic of Botswana, 1: 2,000,000
Land System Map of the Republic of Botswana, 1: 2,000,000
Botswana Energy Distribution Map, 1: 2,000,000
Groundwater Resources Map of the Republic of Botswana (eastern part) 1: 1,000,000
Population in Botswana 1991, map, scale 1:2,000,000)

4. その他

Air Pollution Control 1998 Annual Report, March 1999, Department of Mines
Botswana Country Study, Climate Change Mitigation in Southern Africa, UNEP
National Policy on Vocational Education and Training,
December 1997, Ministry of Labour and Home Affairs
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Botswana Kilometre Chart, 1996, Government Printer
BUSINESS PLAN 1998-2001, Central Statistic Office, November 1998
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EXPLANATORY NOTE ON THE LAND SYSTEMS MAP OF BOTSWAMA, FAO,
Gvt. of Botswana, UNDP, December 1990