



OCCASION

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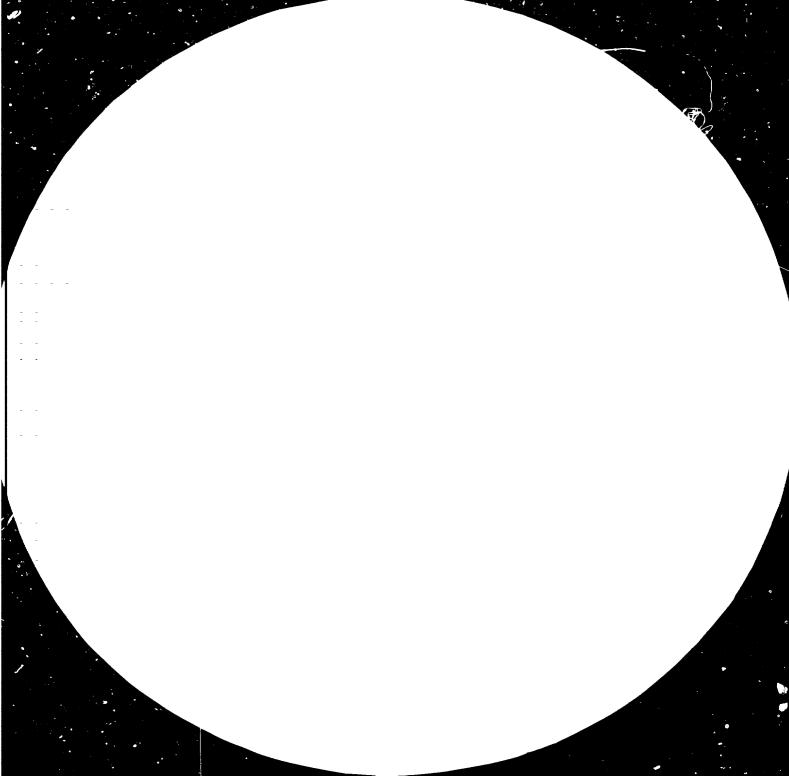
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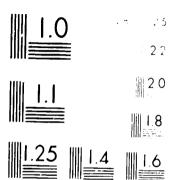
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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Distr. LIMITED UNIDO/IS.340 14 September 1962 ENGLISH

DIRECTORY OF

SOLAR EQUIPMENT MANUFACTURERS.

Volume I *

prepared by the secretariat of UNIDO

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Increasing attention has been focused on non-conventional sources of energy following the energy crisis in 1973 and this was recently highlighted by the Conference on New and Renewable Sources of Energy, organized by the United Nations at Nairobi in August 1981. One of the more promising areas is solar energy where research and commercialization has oft found government support. As a result, the "solar industry has been growing from a scattered few pioneers to a fully-fledged industry which is increasingly drawing the attention of investors and entrepreneurs.

The present information on solar equipment manufacturers has been compiled by the Industrial and Technological Information Bank (INTIB) of UNIDO in response to affirmed interest on the part of developing countries and is intended to provide guidance to prospective buyers as well as entrepreneurs who may be wishing to set up manufacture on a joint venture basis, etc. It contains the names of manufacturers in developed countries on the basic of questionnaires received from a total number of approximately 400 that had been approached. Consideration is being given to a companion volume on manufacturers and products from developing countries.

Information provided on the data sheets has been included as submitted by the contributing companies with some information added by UNIDO where company brochures and specifications were available, but could not be reproduced due to lack of space. Prices quoted should be regarded as indicative only since data sheets were submitted over a period of time prior to publication and prices may have changed since.

Since the industry is young and still vulnerable, its pattern is changing constantly: new enterprises are being established, others are closing down or are being bought up. The present list, by necessity therefore, cannot be complete. It is based on information received from companies who were known at the time of inception of the survey and who decided to participate in the scheme.

A Technological Information Profile on Solar Energy Applications, UNIDO/IS.339 and a Directory of Solar Research Institutes in Developing Countries, UNIDO/IS.341 are produced simultaneously.

Mention of firm names and commercial products does not indicate the endorsement of UNIDO nor does the quotation or description of any proprietary right (patent, trademark, industrial design, etc.) imply the confirmation by UNIDO of its existence and validity.

PRODUCT CLASSIFICATION

1	COLLECTORS (FLAT PLATE,	PARABOLIC	AND	EVACUATED	TUBE)	CAN-01 CAN-03 CAN-05 CAN-05 CAN-06 CAN-07 CAN-08 CAN-10 FRA-05 FRA-08 FRA-12 FRA-12 FRA-12 FRA-12 FRA-13 FRA-12 FRA-21 FRA-21 FRA-21 FRA-23 GFR-04 ISR-01 JAP-01 NET-03 SPA-01 UK -04 UK -18 UK -21 UK -22 UK -24 USA-21	
	a Out of the state	o (1011 DOMO	nc.			USA-21 USA-25 FRA-02	
2	CONCENTRATIN	o coldecte	cno			GFR-02 GFR-03 GFR-04 UK -04 UK -15 USA-01 USA-05	(b)

3	PHOTOVOLTAIC CELLS AND MODULES	FRA-09 FRA-11 FRA-15 FRA-16 GFR-05 ITA-01 ITA-02 UK -10 UK -11 USA-02 USA-03 USA-05 USA-10 'USA-16 USA-15 USA-15 USA-16 USA-18 USA-21 USA-22 USA-23
4	PHOTOVOLTAIC BASED SYSTEMS	FRA-01 FRA-09 FRA-16 GFR-01 (a-g. UK -11 USA-11 USA-12 USA-15 USA-16 USA-17 USA-19
5 \$	solar water pumps	CAN-04 FRA-04 FRA-16 FRA-17 GFR-01 (a) GFR-02 (d) USA-11 USA-17

6	SOLAR WATER HEATING SYSTEMS	AUS-01 AUL -01
		AUL-02 CAN-01 CAN-03 CAN-04 CAN-06 CAN-06 CAN-06 FRA-05 FRA-12 FRA-12 FRA-15 FRA-15 FRA-15 FRA-16 UK -07 UK -08 UK -16 UK -19 UK -26 USA-09 USA-09 USA-11 USA-24
7	SOLAR COOLING SYSTEMS (ACTIVE AND PASSIVE)	GTR-01 (d) GFR-02 (e) GFR-04 JAP-02 USA-04 USA-11 USA-13
8	SOLAR SPACE HEATING (ACTIVE AND PASSIVE)	USA-13 USA-20
9	SOLAR DESALINATION EQUIPMENT AND SYSTEMS	AUL-G; CAN-04 FRA-20 FRA-21 GFR-01 (c) GFR-02 (c)

10	SOLAR COOKERS	SWI-01 UK -10
11	SELECTIVE COATINGS/SURFACES SPECIAL GLAZINGS	CAN-05 CAN-10 UK -05 UK -14 USA-06
12	SOLAR LABORATORY EQUIPMENT/ SOLAR RADIATION MEASUREMENTS	CAN-09 GFR-02 (g) NET-01 SWI-02 USA-08
13	SOLAR CONTROL SYSTEMS	CAN-05 UK -1 UK -11 UK -12 UK -20 USA-13
14	TEMPERATURE DIFFERENTIAL CONTROLS	SPA-01 UK -01 UK -08 UK -10 UK -13 UK -15 UK -23 UK -27
15	HEAT PUMPS	AUS-01 Fra-10 UK -20

16	HEAT EXCHANGERS	CAN-02 FRA-10 UK -06 USA-07 USA-25
17	HEAT STORAGE MEDIA	CAN-05 UK -09 USA-25
18	ENERGY STORACE	uk −20
19	SHADING DE'TCES	UK -03
20	PRIME MOVERS	FRA-02 GFR-04
21	SOLAR ENERGY SYSTEMS	FRA-02 UK -25 USA-05
22	SOLAR ENGINEERING AND DESIGN	FRA-19 UK -17
23	WIND ENERGY	GFR-03 GFR-04 UK -13 UK -20 USA-05 USA-13

INDEX OF COMPANIES

CODE	NAME OF COMPANY	PRODUCT CATEGORY	
AUS-01	Vereinigte Metallwerke Ranspofen-Berndorf AG	Solar Water Heating Systems Heat Pumps	(6) (15)
AUL-01	Beasley Industries Pty.Ltd.	Solar Water Heating Systems	(6)
AUL-02 AUL-03	Edwardsot Water Systems Solar-Ray Engineering	Solar Water Heating Systems Solar Desalination Fouipment	(₆)
CAN-O1	Amherst Renewable Energies Ltd.	Collectors (flat plate and evacuated tube) Solar Water Heating Systems	(1) (6)
CAN-02	Enercon Industries Ltd.	Heat Exchangers	(16)
CAN-O3	Nortec Solar Industries Inc.	Collectors (flat plate and evacuated tube) Solar Water Heating Systems	(1) (6)
04N 04	Petro-Sun Inc.	Collectors (flat plate)	(1)
CAN-04 CAN-05	Solar Systems Industries Ltd.	Collectors (flat plate)	(1)
CAN-O5	Dolar by Stells Thansviles Doc.	Heat Storage Media	(17)
		Selective Coatings Solar Control Systems	(11) (13)
can-o6	Solartech Limited	Collectors (flat plate and evacuated tube)	(1)
		Solar Water Heating Systems	(6) (1)
CAN-07	Sun Ray Solar Systems Ltd.	Collectors (flat plate)	(1)
CAN-08	TEMSPEC (Temperature Spec. Manufacturers Ltd.)	Collectors (flat plate) Solar Water Heating Systems	(6)
CAN-03	Vortex Industries Ltd.	Solar Laboratory Equipment	(12)
CAN-10	Watershed Energy Systems Ltd.	Collectors Special Solar Glazings	(1) (11)
FRA01	Alpamara Sarl	Photovoltaic Based Systems	(4)
FRA-02	Alsthom-Atlantique	Concentrating Collectors	(2)
FRA-03	Bertin and Cie.	Collectors (flat plate)	(1)
FRA-04	Briau S.A.	Solar Water Pumps	(5)
FRA-0 5	Brunet-France S.A.	Collectors	(1)
FRA-06	CEPEM	Solar Water Heating Systems	(6)
FRA-07	Compagnie Solaire de Lorraine	Solar Water Heating Systems	(6)
FRA-08	Cie. des Lampes Mazda	Collectors (evacuated tube)	(1)
FRA-09	Ste. ERCIM	Photovoltaic Based Systems	(2)

FRA-10	Forges de Crans	Collectors (flat plate) Heat Pumps Heat Exchangers Photovoltaic Cells and Modules	(1) (15) (16) (3)
FRA-11	France-Photon	Photovoltaic Cells and Modules	(3)
FRA-12	S.A. Giordano	Collectors (flat plate) Solar Water Heating Systems	(1) (6)
FRA-13	Heraud S.A.	Solar Water Heating Systems	(6)
FRA-14	Landex S.A.	Collectors (flat plate)	(1)
FRA-15	Lemercier	Solar Water Heating Systems	(6)
FRA-16	Leroy-Somer	Photovoltaic Cells and Modules	(3)
FRA-17	Ets. Pompes Guinard	Solar Water Pumps	(5)
FRA-18	Salva Eclair	Solar Water Heating Systems	(6)
FRA-19	Séri Renault Ingenierie	Solar Engineering and Design	(22)
FRA-20	SIDEM	Desalination Equipment +Systems	(9)
FRA-21	SOLEFIL	Collectors (flat plate) Desalination Equipment +Systems	(1) (9)
FRA-22	SOLENA	ad Collectors	(1)
FRA-23	SUDINOX S.A.	Collectors (flat plate)	(1)
GFR-01	AEG-Telefunken (a (c (d	((4) (5) (9) (7)
CFR-02	(b (c (d (e) Collectors) Concentrating Collectors) Desalination Equipment +Systems) Solar Water Pumps) Solar Cooling) Solar Laboratory Equipment) Collector Test Facility	(1) (2) (9) (5) (8) (12) (1)
GFR-03	M.A.N. Maschinenfabrik Augsburg-Nürnberg	Concentrating Collectors Wind Energy	(2) (23)
GFR-04	MBB Mec. schmitt-Bölkow- Blohm GmbH (Space Division)	Collectors (flat plate and parabolic) Concentrating Collectors Desalination Equipment + System Solar Cooling Systems Prime Movers	(1) (2) s(9) (7) (20)
GFR-05	Siemens AG	Photovoltaic Cells and Modules	(3)
ISR-01	Amcor Export Co. Ltd.	Collectors (flat plate)	(1)
ITA01	Ansaldo S.P.A.	Photovoltaic Cells and Modules	(3)
ITA-02	ARCO Solar Europe S.p.A.	Photovoltaic Cells and Modules	(3)
JAP-01	The Furukawa Electric Co., Ltd.	Collector (flat plate)	(1)
JAP-02	Yazaki Corporation	Solar Cooling Systems	(7)

NET-G1	B.V. Voorheen P.J. Kipp and Zonen	Solar Laboratory Equipment/	(12)
	Zivi vice in property	Solar Radiation Measurement	(– /
NET-02	Nijs and Vale B.V.	Collectors (flat plate)	(1)
NET-03	NA. Philips Gloeilampenfabrieken	Collectors (evacuated tube)	(1)
SPA-1	Raysol	Collectors (flat plate) Temperature Differential Control	(1) ols (14)
SWI-01	Etampes Mechanique	Solar Cooker	(10)
UK-01	Alfa Joule Ltd.	Temperature Differential Contro	ols (14)
UK0 2	Antarim Ltd.	Collectors (flat plate)	(1)
UK- 03	Colt Solar Control Ltd.	Shading Devices	(19)
UK -04	Commercial Solar Energy Ltd.	Collectors (flat plate Concentrating collectors	(1) (2)
UK-0 5	Corning Industrial Materials Department (Corning Glass Works)	Selective Surfaces	(11)
UK-0 6	Delta R.A. Limited	Heat Exchangers	(16)
UK - 07	Elsy and Gitbons Ltd.	Solar Water Heating Systems	(6)
UK -08	ELSTEC-Solar Energy	Collectors (flat plate) Solar Water Heating Systems Temperature Differential Control	(1) (6) ols (14)
UK09	Gledhill Water Storage Ltd.	Heat Storage Media	(17)
UK-10	Heliotechnic Ltd.	Photovoltaic Cells and Modules Collectors Temperature Differential Contr Solar Cookers	(1)
UK-11	Lucas BP Solar Systems Ltd.	Photovoltaic Cells and Modules Photovoltaic Based Systems Solar Control Systems	(3) (4) (13)
UK-12	McKee Solaronics Ltd.	Collectors (flat plate) Solar Control Systems	(1) (13)
UK-13	Microvitec Ltd.	Temperature Differential Contr	ols (14)
UK-14	MPD Technology Ltd.	Selective Coatings	(11)
UK-15	Natural Energy Jersey Ltd.	Concentrating Collector Temperature Differential Contr	(2) ols (14)
UK-16	Oceanware Ltd.	Solar Water Heating Systems	(6)
UK-17	Pendar Technical Associates Ltd.	Design of Solar Systems	(22)
UK- 18	Percy Larc Limited	Collectors (flat plate)	(1)
UK-19	Pilkington Solarproducts Ltd.	Solar Water Heating Systems	(6)
UK -20	Precision Electronic Controls Ltd.	Solar Control Systems Heat Pumps Energy Storage Wind Energy	(13) (15) (18) (23)

UK- 21	Redpoint Associates Ltd.	Collectors (flat plate)	(1)
UK- 22	Remrod Engineering Ltd.	Collectors (flat plate)	(1)
UK- 23	Ringdale Engineering Co. Ltd.	Temperature Differential Control	.s (14)
UK- 24	Robinsons	Collectors (flat plate)	(1)
UK- 25	Solapak Ltd.	Solar Energy Systems	(21)
UK- 26	Solartraps Ltd.	Solar Water Herting Systems	(6)
UK-27	Solight Systems	Temperature Differential Control	ls (14)
UK- 28	Spencer Solarise Ltd.	Collectors (flat plate)	(1)
USA 01	AAI Corporation	Concentrating Collectors	(2)
"SA-02	Applied Solar Energy Corporation	Photovoltaic Cells and Modules	(3)
USA-03	ARCO Solar, Inc.	Photovoltaic Cells and Modules	(3)
USA-04	ARKLA Industries Inc.	Solar Cooling Systems	(7)
USA-05	Atlas International Group	Collectors (flat plate) Photovoltaic Cells and Modules Solar Water Heating Systems Solar Energy Systems Wind Energy	(1) (3) (6) (21) (23)
USA-06	E.I. du Pont de Nemours + Co.	Selective Solar Glazings	(11)
USA-07	Edwards Engineering Corporation	Feat Exchangers	(16)
USA-08	The Eppley Laboratory, Inc.	Solar Laboratory Equipment/ Solar Radiation Measurement	(12)
USA-09	FAFCO, Inc.	Solar Water Heating Systems	(6)
USA-10	Mobil Tyco Solar Energy Corp.	Photovoltaic Cells and Modules	(3)
USA-11	Monegon Ltd.	Photovoltaic Based Systems Solar Water Pumps	(4) (5)
USA-12	Motorola Inc.	Photovoltaic Based System	(4)
USA-13	Parkway Energy Products Corp.	Solar Control Systems Wind Energy	(13) (23)
USA-14	Photon Power, Inc.	Photovoltaic Cells and Modules	(3)
USA-15	Photowatt International. Inc.	Photovoltaic Cells and Modules Photovoltaic Based Systems	(3) 4)
USA-16	Silicon Sensors, Inc.	Photovoltaic Cells and Modules	(3)
USA-17	Solar Electric International	Photovoltaic Based Systems Solar Water Pumps	(4) (5)
USA-18	Solar Power Corporation	Photovoltaic Based Systems	(3)
USA-19	Solarex Corporation	Pjotovoltaic Based Systems	(3)
USA-20	Solarcon. Inc.	ad Solar Space Heating Systems	(8)
U^ <u>A</u> −21	Solec International, Inc.	Photovoltaic Cells and Modules	(3)
LJA-22	Solenergy International Corp.	Photovoltaic Cells and Modules	
USA-23	Sollos Incorporated	Photovoltaic Cells and Modules	(3)
USA-24	Sunworks	Collectors (flat plate and swac	.) (1)
USA-25	United States Solar Ind., Inc.	Collectors (flat plate) Heat Exchangers Heat Storage Media	(1) (16) (17)
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	UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
	Product(s) manufactured:	SOLAR WATER HEATING
	- complete sclar installation C-300	Systems
	- heat nump Combi 300	HEAT PUMPS
		e and telex no.): Tel: (02672) 2900 TELEX: 14 452 A
	Size and type of company: (number of employees; annual sales; share capital) - 5,500 employees - US\$ 400 million annual sales (incl.non-solar)	private governmental mixed
	- US\$ 40 million share capital Contact person:Ing. Kurt A. Ortner (Sales Department	for Solar Systems)
	Description of product (main data and specifications):
	installations for hot water preparation	
	Terms of delivery (mode of payment):	:
	prompt deliver; payment upon agreement	
	Price (valid at the time of issuance of respective data compact solar installation 0 300	40 23 000
	Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
:	Type of assistance offered:	
	1. Technical /7 3. Marketing [5. Training [7
	2. Management / 4. Design /	6. Other (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.
1		

Reference No. UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT AUL-01 Product(s) manufactured: SOLAR WATER HEATING SYSTEMS -- Solar water heaters - electric and gas boosted for domestic, commercial and industrial applications. Name and address of manufacturer (including telephone and telex nc.): Telephone: (09) 464971 BEASLEY INDUSTRIES PTY. LTD. Bolton Avenue Devcn Park, South Australia 5008 Telex: AA88691. GCADEL. Size and type of company: private (number of employees; annual sales; share capital) governmental mixed Private manufacturing company - 150 employees. Annual sales - AUST \$ 6,000,000. Contact person: Mr. Frank D. Bauer, General Manager and Director Description of product (main data and specifications): 'SOLAPAK' Solar Collectors. 1.5m2 Collector Area. Terms of delivery (mode of payment): 15 days from receipt of irrevocable letter of credit. Price (valid at the time of issuance of respective data sheet): -- AUST \$ 130. F.O.B. Guarantees and maintenance service offered: Guaranteed 3 years. Maintenance service offered, would depend upon area of installation Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) 1. Complete licensing agreement for the manufacture of Solapak solar collectors available. 2. Processing of selective coatings on various substitute materials (included in licence agreement). Type of assistance offered: 1. Technical X 3. Marketing 5. Training $\sqrt{\chi}$ 2. Management /7 6. Other 4. Design (specify)

Terms and conditions for transfer of sechnology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

licencing agreements.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. AUL-02 Product(s) manufactured: SOLAR WATER REATING SYSTEMS Solar Water Heaters Domestic Commercial Name and address of manufacturer (including telephone and telex no.): Edwards Hot Water Systems 8 Bellows Street Welshpool, Western Australia 6106 Size and type of company: rrivate (number of employees; annual sales; share capital) governmental mixed R.E. Edwards Contact person: Description of product (main data and specifications): Domestic Solar Water Heater on Thermosyphon Principle Cylinder Capacity Range 135, 180, 300, 440 Litres. Absorber area 2,4,6 sq.m. Commercial solar water heater: on heat exchange principle, engineered to any capacity or absorber area to suit hotels, motels, hospitals, caravan parks and restaurants. Terms of delivery (mode of payment): Letter credit for overseas Price (valid at the time of issuance of respective data sheet): Price on application Guarantees and maintenance service offered: Domestic: 5 years Commercial: 12 months Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Full knowledge to set up and operate a complete manufacturing plant Type of assistance offered: 1. Technical *7 3. Marketing 5. Training / 6. Other 2. Management /7 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) By negotiaiton

Date of issue: March 1982

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UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No. AUL-0:

Product(s) manufactured:

SOLAR DESALINATION EQUIPMENT AND SYSTEMS

Solar Energy Water Desalination Plants

- (1) total turnkey project basis
- (2) modular form packages plus enrineering supervision for installation

Name and address of manufacturer (including telephone and telex no.):

SOLA-RAY ENGINEERING

9 Sundercombe So. Osborne Park (P.C. Fox 75, Tuart Hill, W. Australia 60t 4). Western Australia

Size and type of company: (number of employees; annual sales; share capital)

private governmental mixed

- -- 10-15
- -- Exceeds US \$1,000,000.

Contact person: Ron. J. Brown (proprietor)

Description of product (main data and specifications):

Basic type solar still with gable roof.
Direct method of desalination.
Consulting on indirect methods available.

Terms of delivery (mode of payment): Mobilization leposit and L/C forms of security.

Price (valid at the time of issuance of respective data sheet): FOA Turnkey basis budget US\$ 37,500/ton middle last capacity for sea water (extra for solar or wind pumps)

Guarantees and maintenance service offered: 12 months scientific performance monitoring and maintenance supervision from monitoring data.

Description of technology offered: Low and medium. (for companies possessing know-how that might be made useful in the developing countries)

Type of assistance offered:

- 1. Technical X
- 3. Marketing [7
- 5. Training

- 2. Management [7]
- 4. Design
- 6. Other (X) (specify) (apply instal

Terms and conditions for transfer of technology:
(basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

Frow-how agreements.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	COLLECTORS (FLAT PLATE AND
Liquid flat plate solar collectors; Glass fiber matrix air solar collectors; Evacuated tube liquid solar collectors; Fackaged domestic hot water systems (pressurized).	EVACUATED TUBE) SOLAR WATER HEATING SYSTEMS
Name and address of manufacturer (including telephone	and telex no.):
AMHEROT RENEWABLE FUFEGIES WID Telephone: FIS-2 Box 887	267-6060
Perth, Ontario K7H 3G1 (CANADA) Telex: 054-3661 Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
Contact person: J. Alec Rait	
Description of product (main data and specifications) Air flat plate collector (2368x1205 mm) for space heat drying; Liquid rlat plate collector (2447x1235 mm) for and space heating; DHH system (closed loop); work al air drying systems. Terms of delivery (mode of payment):	ing, water heating and process hot water, DHW
Price (valid at the time of issuance of respective da Liquid collector\$165(Can.)/m ² ; Air collector\$150 DHWfrom \$2250.(Can.) Guarantees and maintenance service offered: Two year warranty.	
Description of technology offered: (for companies possessing know-how that might be developing countries) Thin film glazing; That fiber absorbers (air);	. ful in the
high efficiency fabricate i absorbers (iiquid).	
Type of assistance offered:	
25	5. Training []
2. Management 🗍 4. Design 💯	6. Other
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.
: now-how agreements.	

	UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
	Product(s) manufactured:	HEAT EXCHANGERS
	Heat recovery systems	
Í	Nam and address of manufacturer (including telephone	•
	ENERCON INDUSTRIES LTD Telephone: (3 2073 Cornwall Street Telex: 071-31 Regina, Saskatchewan S4P 2K6 (CANADA) Size and type of company: (number of employees; annual sales; share capital)	
	35 employees	THE ACU
	Annual sales \$1,000,000.	
	Contact person: Dennis Rogoza	
	Description of product (mair data and specifications) Air-to-air heat exchanger. Various models for various applications; residential industrial, agricultural. Terms of delivery (mode of payment): Please enquired Price (valid at the time of issuance of respective data Enercon 150 \$1495.00 Enercon 400 \$1895.00 Enercon 200 \$1595.00 Enercon 800 \$2695.00 Guarantees and maintenance service offered: Warranty.	al, commercial, c. ata sheet):
	Description of technology offered: (for companies possessing know-how that might be made developing countries) Design services for low energy/passive solar structure technologies, licensing, etc.	
	Type of assistance offered: 1. Technical X 3. Marketing Z 2. Management Z 4. Design X	5. Training [] 6. Other [] (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.) Joint ventures, Enow-how agreements.	reements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. CAN-03 Product(s) manufactured: COLLECTORS (FLAT PLATE) -- Thermal diode flat plate solar collector SOLAR WATER HEATING - D.H.W. systems SYSTEMS Name and address of manufacturer (including telephone and telex no.): NORTEC SOLAR INDUSTRIES INC. Telephone: (613) 692-2513 P.O. Box 188 Manotic, Ortario KOA 2NO (CANADA) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed Contact person: J. Ramsden Description of product (main data and specifications): Thermal diodes allow each collector to be thermally independent thus reducing system array piping. Gross area: 1.95 m²; net aperture area: 1.73 m²; weight filled: 43.3 kg; Absorber coating: spectrally selective electroplated black chrome; Terms of delivery (mode of payment): Net 30 days for factory. Price (valid at the time of issuance of respective data sheet): \$315.00/Unit Canadian. Guarantees and maintenance service offered: 5 year limited warranty. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Type of assistance offered: 1. Technical X 3. Marketing [] 5. Training (X) 2. Management [] 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Know-how agreements.

UNIDO DATA SHE	ET ON SOLAR HAI	RUWARE AND E	QUIPMENT	Reference Mo.
Product(s) man	ufactured:			
	and high tempe	rature flat	plate col-	COLLECTORS (FLAT PLATE
lectors;	-			SOLAR WATER EEAT!ING S.
Solar domest	tic hot water s circulating an			SOLAR WATER PURES
Solar irriga	ation pump (pho			SOLAR DESALINATION
Solar desal:	ination plant.			EQUIPMENT AND SYSTEMS
Name and addre	ess of manufact	urer (includ	ing telephone	and telex no.):
PETRO-SUN INC	•		Telephone:	(514) 337-2264
2915 Pitfield	Blvd. Quebec H4S 1L6	(CANADA)	Tolor.	05-25686
Size and type	of company:	(CANADA)	ielex:	provate
(number of emp	loyees; annual	sales; shar	e capital)	governmental mixed
Manufact	- -			
70 emple	oyees ,000 Canadian			
	Jacques R. S	icotte, P.En	g., M.Sc., Pre	sident
			V.P. Sales ar	
L/C. Price (valid a	very (mode of post the time of some second s	issuance of		a sheet):
	technology of possessing knutries)		might be made	useful in the
Engineerin	g service and m	anufactu: ing	training sess	ions.
Type of assist	ance offered:			
1. Technical	[3]	. Marketing	[X] 5	. Training \sqrt{X}
2. Management	<i>₹</i> 7 4	. Design	[X] 6	. Other (specify)
(basis for co- reference to	litions for tra -operation: joi patent rights,	nt ventures; etc.)		ements; etc.
Lie nee or	Joint venture.			

UNIDO DATA SHEET ON SOLAR HARD-ARE LID EQUIPMENT Reference No. CAN-OS Froduct(s) manufactured: COLLECTORS (FLAT PLATE) -- Flat plate solar collectors; HEAT STORAGE MEDIA -- Solar controllers: SELECTIVE COATINGS -- Colar storage tanks; -- Black chrome on copper for pushrbers. SOLAR CONTROLS Name and address of manufacturer (including telephone and telex no.): SOLAR SYSTEMS INDUSTRIAN LTT 2-11771 Horseshoe Way. Richmonl, B.C. (CANADA) V7: S5 Size and type of company: private (number of employees; and I sales; share capital) governmental mi xed -- 30 Employees. -- \$2,000,000. Sale ... Contact person: E. C. Salter, International Marketing Manager Description of product (main data and specifications): High performance collector --Low iron glass, black chrome absorber, aluminum frame plastic, fibreglass and steel tanks. Continuous strip electroplated copper for absorbers. Terms of delivery (mode of payment): 1 month delivery on container quantities (letter of credit) Price (valid at the time of issuance of respective data sheet): \$15./Ft² Canadian, \$12.50/Ft² U.S. (container quantities) Guarantees and maintenance service offered: 5 year warranty on tanks, collectors, 1 year on controls. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Flat plate collector assembly; Solar system design; Black chrome electroplating. Type of assistance offered: 3. Marketing 1. Technical X 5. Training 1/x/ 2. Management /7 6. Other 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Joint ventures or licensing agreements.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIFICENT	Reference No.	
Product(s) manufactured:	COLLECTORS (FLAT PLATE AND EVACUATED TUBE)	
Evacuated tube collectors; Flat plate air and liquid collectors; Solar domestic hot water systems; Passive solar water neaters.	SOLAR WATER HEATING SYSTEMS	
•	and telex no.): : (416) 758-4990	
59 Cranfield Road Toronto, Ontario MAR PRÉ (CANADA) Telex	: 96-986766	
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed	
15 Employees; Sales - \$1,000,000 + annually; Privately owned, Canadian company. Contact person: David Wood, President		
Description of product (main data and specifications) Detailed data sheets available from company.	:	
becarred data sheets warrante from company.		
Terms of delivery (mode of payment): Negotiable.		
Price (valid at the time of issuance of respective da	ta sheet):	
\$80 to \$350 per square meter depending on type of collectors used. Guarantees and maintenance service offered:		
3 year product warranty.		
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the	
Heating and cooling system design, installation on	t operation.	
Type of assistance offered:		
1. Technical X 3. Marketing	5. Training \sqrt{X}	
2. Manageme.it _7 4. Design _X	<pre>6. Other [] (specify)</pre>	
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements: etc.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. CAN-07 Froduct(s) manufactured: COLLECTORS (FLAT PLATE -- Solar Collectors (liquid flat plate): -- ii:ferent sizes - 8 moiels. Name and address of manufacturer (including telephone and telex no.): SUN RAY SOLAR SYSTEMS Ltd. 2429 Seminole St Windsor, Ontario NEY 1X2 (CANADA) Telephone: (519) 253-5597 Size and type of company: private (number of employees; annual sales; share capital) governmental mired -- 19 employees Contact person: Earl J. Pattison Description of product (main data and specifications): 883mm x 0151mm(3' x 7') 1186mm x 0456mm(4' x 8') Enclosure - aluminum frame Glazing - C-E Heliolite tempered glass Absorber - copper tube sodlered to copper sheet Absorber Coating - chrome selective coating Terms of delivery (mode of payment): Insulation - Polyisocyanurate Irrevocable letter of credit before shipment. Price (valid at the time of issuance of respective data sheet): 3' x 7' collector: \$290.00 4' x 8' collector: \$470.00 Guarantees and maintenance service offered: 5 year limited warranty. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Manufacturing experience and knowledge of production. Type of assistance offered: 1. Technical /X 3. Marketing 🔯 5. Training /x7 4. Design 2. Management /X/ 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Negotiable.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Product(s) manufactured: Collectors Water heating systems	Reference No. CAN-08 COLLECTORS (FLAT PLATE) SOLAR WATER HEATING SYSTEMS
Name and address of manufacturer (including telephon TRECTEC (Temperature Specialties Manufacturers Lt1) 535 Canarctic Brive, Downsview, Teronto, Ontario Mod 200 (CANADA) Size and type of company: (number of employees; annual sales; share capital) 34,000 sq.ft. capacity.	e and telex no.): Telephone: (%10)/61-05/5 private governmental nixed
Contact person: T.A. Lucas, President	
Description of product (main data and specifications Solar collectors (Government approved); Pomestic (D.H.W.) and Industrial commercial solar Terms of delivery (mode of payment): Price (valid at the time of issuance of respective description of the commercial hot water systems. Guarantees and maintenance service offered: 5 year guarantee on material and labour of equipment of charge.	hot water systems. (ata sheet): th. iomestic asi industrial
Description of technology offered: (for companies possessing know-how that might be maded developing countries)	e useful in the
Type of assistance offered: 1. Technical	5. Training [] 6. Other [] (specify) preements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	SOLAR LABORATORY EQUIPMENT
- Solar Simulators.	Decil rimit
Name and address of manufacturer (including telephone VORTEX INDUSTRIES LTD. Telephone	e and telex no.):
1820 Pandora Street Vancouver, B.C. (CANADA) Teles	c: 04-352848
Size and type of company: (number of employees; annual sales; share capital)	private_ governmental mixed
Contact person: G.G. Albach, President	
Terms of delivery (mode of payment): 30% billed wind 60% bille	er products. Two models :Working area=1.0m x 1.0m iance=-500-3000 W/m2 rmity=-3% th order; th shipment; on commissioning.
Description of technology offered: (for companies possessing know-how that might be madedeveloping countries) The simulators are sophisticated laboratory too	
optical systems and microcomputer control electronic	
Type of assistance offered:	
1. Technical 💢 3. Marketing 🌅	5. Training []
2. Management [] 4. Design [X]	6. Other [7] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how ag reference to patent rights, etc.)	reements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. CAN-10 Product(s) manufactured: COLLECTORS (flat plate) -- Solar collectors (air) -- Solar collectors (liquid) SPECIAL SOLAR GLAZINGS -- Passive solar glazing Name and address of manufacturer (including telephone and telex no.): WATERSHED ENERGY SYSTEMS LTD. 97 Six Point Road Toronto, Ontario M8Z 2X3 (CANADA) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed -- 15 employees -- \$500,000 Contact person: Marie MacLeod, General Manager Description of product (main data and specifications): weight: 35.3 kg L100 Liquid Collector for water heating (175 m² gross collector area); A100 Air Collector for space heating, crop drying ind. process heat (1.85 m gross collector area); weight: 53 kg. Terms of delivery (mode of payment): Negotiable according to value. Long term financing on orders over \$100,000 Price (valid at the time of issuance of respective data sheet): FOB Toronto min. 100: Air Collector \$306.25-389.25; Liquid Collector \$443.50 Guarantees and maintenance service offered: Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) 1. Technical - production and installation of solar collectors. 2. Research and development of alternative energy products. Type of assistance offered: 1. Technical X 3. Marketing $\sqrt{7}$ 5. Training 2. Management /7 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Joint ventures and know-how agreements.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured: VSI-programme: solar lamp; solar power pack 5Ah; solar battery charger; solar radio and television; solar cool box (photovoltaic systems): take it and use it - complete systems for domestics	PHOTOVOLTAIC BASED SYSTEMS
	private governmental mixed
Contact person: Mr. Kopp, ALPAMARA 98, 98, Bd. Montparnasse, 75014, P	aris
Description of product (main data and specifications) all systems working with batteries and 12 V: radios, and military, television etc. can work with charging cells and rechargeable batteries. Terms of delivery (mode of payment): letter of credit; delivery within 4 to 8 weeks Price (valid at the time of issuance of respective data call for offer; all prices fob Paris or Zurich (Swith Guarantees and maintenance service offered: Description of technology offer is	communication in safari systems of photovoltaic ata sheet): zerland)
(for companies possessing know-how that 3ht be made developing countries)	e aseful in the
Type of assistance offered:	~
1. Technical [] 3. Marketing [] 2. Management [] 4. Design []	5. Training [7] 6. Other [7] (specify)
Terms and conditions for tra: 'r of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements; etc.

UNIDO DATA SHEET ON SCLAR HARDWARE AND EQUIPMENT Product(s) manufactured:	Reference No. FRA-02
Solar concentrator; energy systems; objectional and transposent equipment; naval constructions; process equipment for food industry; diesel engines.	CONCENTRATORS PRIME MOVERS SOLAR ENERGY SYSTEMS
Name and address of manufacturer (including telephone ALSTHOM IT ANTION TO Tel. (1) 502 1. 38 Avo. Klober Telex: 611 938	
Size and type of company: (number of employees; annual sales; share capital) 45,000 employees FF 9.7 billion annual cales FF 3.8 billion share capital Contact person: Mr. Jacques Chabonsan, Scientific Director	private governmental mixed
Description of product (main data and specifications) solar concentrators for during, industrial process be engines for solar in tablations; thermodynamic energy systems of all type.	
Terms of delivery (mode of payment):	
To be negoathated in each case according to type and	value of product
Price (valid at the time of issuance of respective da	ta sheet):
Guarantees and maintenance service offered: According to established rules and regulations	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
1. Technical 🔀 3. Marketing 🌅	5. Training [7]
2. Management 7 4. Design 77	6. Other
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.
To be reprostiated according to product and size of ma	rket

	UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
	Product(s) manufactured:	FRA-03
	-collectors (flat plate; evacuated; linear focussing) -solar turbines operating w. heavy organic fluids -solar power stations w. distributed collectors (100 to 1000 kWe)	COLLECTORS (FLAT PLATE
	Name and address of manufacturer (including telephone	and telex no.):
	BP 3 - F.78370	3) 056 2500
	Plaisir (France) Tlx.: 69	06231
	Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
	- 600 emoloyees. - FF 125.500.000 annual sales	
	- FF 10.010.000 share capital Contact person: Mr. P. Tarbès, Relations International	.es
	Description of product (main data and specifications):	:
	see above	
	Terms of delivery (mode of payment):	
	Price (valid at the time of issuance of respective date	ta sheet):
	Guarantees and maintenance service offered:	
	Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
	Collectors; flat plate with air: evacuated; linear f Solar turbine with heavy organic fluid Solar power stations with distribution collectors (1	_
	Type of assistance offered:	
	1. Technical X 3. Marketing \(\sum_{2} \)	5. Training
	2. Management / 4. Design / K	6. Other (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agree reference to patent rights, etc.)	eements; etc.
	Know-how agreements; licensing	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	
Solar pumps	SOLAR WATER PUMPS
Name and address of manufacturer (including telephone BRIAU SA Tel.: (47) 3.P. 0903	61 36 17
37009 Tours CEDEX (France) Telex: 750	729
Size and type of company: (number of employees; annual sales; share capital) 100 FF 25 million	private governmental mixed
Contact person: Mr. Panterne	
Descriptica of product (main data and specifications)	:
Photovoltaic solar pumps	
Terms of delivery (mode of payment): vary from case to case and have to be negotiated Frice (valid at the time of issuance of respective dadepends on size of order Guarantees and maintenance service offered: 2 years	ta sheet):
Description of technology offered; (for companies possessing know-now inat might be made ieveloping countries)	useful in the
Type of assistance offered:	
1. Technical 🖅 3. Marketing 💭	5. Training 🔼
2. Management / 4. Design /	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	eements; etc.

Unido data sheet on solar hardware and equipment	Reference No. FRA-05
Product(s) manufactured:	COLLECTORS
Solar collectors	(FLAT PLATE)
Name and address of manufacturer (including telephone BRUNET-FRANCE-SA. Tel.: (5) Le Taillan Mèdoc 33320 Eysines (France)	e and telex no.): 56) 35 12 07
Size and type of company: (number of employees; annual sales; share capital)	<u>private</u> governmental mixed
18 employees.FF 4.000.000 annual sales;FF 208.300 share capital.	ar Agu
Contact person: Mr. Pobert Brunet	
Description of product (main data and specifications)) :
Solar collectors.	
Terms of delivery (mode of payment):	
Letter of credit	
Price (valid at the time of issuance of respective data 1100 FF for 1 m^2	ata sheet):
Guarantees and maintenance service offered:	
Five years with according maintenance.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered: 1. Technical	5. Training [] 6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how ago reference to patent rights, etc.)	
Know-how and patents.	

UNIDO DATA SHEET ON SOLAP HARDWARE AND EQUIPMENT	Reference No. FEA-Oc
Product(s) manufactured: hot water reservoirs; electro-solar water heater with or without heat exchanger; controls	DOLAR WATER HEATING SYSTEMS
Name and address of manufacturer (including teleph Tel CEPEM G Fr. St. Jean 45100 Origins (FRANCE) Tlx.) 03 03
Size and type of company: (number of employees; annual sales; share capital) - 2.285 employees - 736.266 KF share capital - 30.000.000 annual sales Contact person: Mr. Jean Maure, Sales Manager	private governmental mired
Description of product (main data and specification, solar and electro-solar water heater with enamelles theat exchanger; controls to be installed between to.	ank with or without
Terms of delivery (mode of payment): To be negotiated; delivery in general by sea contain Price (valid at the time of issuance of respective is Varies according to type and capacity. Guarantees and maintenance service offered: Enamel steel tank: 10 years: other equip. 1 year.	<u>.</u>
Description of technology offered: (for companies possessing know-how that might be made developing countries) Manufacture of solar water heaters with enamelled to	
Type of assistance offered: 1. Technical X 3. Marketing [7] 2. Management X 4. Design [7] Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how assistance of technology:	5. Training (X) 5. Other (Specify) reements; etc.
reference to patent rights, etc.) To be negotiated in each case according to requirement	nts.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Product(s) manufactured:	Reference No. FRA-07 SOLAR WATER HEATING SYSTEMS
- Solar water heaters.	J. STERU
24 route de Thionville, BP 23	e and telex no.): 8) 780 5696 30 431 CSL
Size and type of company: (number of employees; annual sales; share capital) - 25 employees 1000 annual sales - 1720 000 F capital	private governmental <u>mixed</u>
Contact person: Mr. Jacques Pinauldt Description of product (main data and specifications)) :
Terms of delivery (mode of payment): Small quantities: immediately Large quantities: to be discussed. Price (valid at the time of issuance of respective da Standard water heater: 200 1: 10,153, 62 FF TTC. Guarantees and maintenance service offered: 10 years; after sale service guaranteed	ata sheet):
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
Type of assistance offered:	
2. Management	5. Training 6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. FRA-08 Product(s) manufactured: COLLECTORS Evacuated solar collectors Heliotube Mazda (EVACUATED TUBE) Name and address of manufacturer (including telephone and telex no.): CIE DES LAMPES MAZDA Tel.: 772 00 63 11. Quai de Dion Bouton Telex: 630418 92800 Puteaux (France) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed 5,000 FF 1000 m. FF 96,758,200 Contact person: Mr. Yves Duriau Description of product (main data and specifications): evacuated solar collector, in standard or modified modules; high performance, can be used up to 90°C and above and in poor weather conditions (wind, clouds) Terms of delivery (mode of payment): ex-factory or other mode of payment upon request Price (valid at the time of issuance of respective data sheet): FF 1,000 - FF 2,000 / m2 H.T. according to specifications and size of order Guarantees and maintenance service offered: guaranteed performance - no specific maintenance required. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) The recipient country may start assembling the collector with the excention of the evacuated tubes including the absorber Type of assistance offered: 3. Marketing / 5. Training 1. Technical /X 6. Other 2. Management /7 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Modalities requested by the interested country will be examined without any a priori limitations.

Unido data sheet on sclar hardware and equipment	Reference No. FRA-O9
Product(s) manufactured:	PHOTOVOLTAIC BASED SYSTEMS
photovoltaic systems	
Hame and address of manufacturer (including telephone STE ERCIM Tel.:	and telex no.):
150 Rue Jean Jaurès - BP 28 93470 Coubron (France)	212006
Size and type of company: (number of employees; annual sales; share capital)	private governmental
- 106000.00 F capital.	mixed
Contact person: Mr. Boucq	
Description of product (main data and specifications) Pumping; lighting; TV; radio, etc.	:
Terms of delivery (mode of payment): 30 days.	
Price (valid at the time of issuance of respective da	ta sheet):
Guarantees and maintenance service offered: 5 years on collector 1 year on electronic parts and accumulators.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	5 D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1	5. Training [X] 6. Other []
	(specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.
l .	

UNIDO DATA SHEET ON SCLAR HARDWARE AND EQUIPMENT Product(s) manufactured: Allo rights for: That collectors with class; Heat-pump systems; Heat exchangers.	Reference No. FRA-10 COLLECTORS (FLAT PLATE) HEAT PUMPS HEAT EXCHANGERS
Name and address of manufacturer (including telephone FORGEC DE CRANS Tel.: (79 235, Avenue Alsace Formine 73000 Chambery (FORGE) Telex: 32	9) 69 37 27
Size and type of company: (number of employees; annual siles; share capital) Sign Employees Annual rules: RE.Com,000,000 Becomes to Pecrincy Unine Euhlmann Contact person: Mr. F. Dominique	private governmental mixed
Description of product (main data and specifications) Aluminium pane with integrated passure way, equipout tubing uni external carface finish.	
Maximum sizes: or 000 mm X 300 mm. Terms of delivery (mode of payment):	
Price (valid at the time of issuance of respective is About 177 200 / m. Guarantees and maintenance service offered: Special information concerning use obtitions.	ata sheet):
Description of technology offered: (for companies possessing knohow that might be made developing countries)	e useful in the
Type of assistance offered: 1. Technical X 3. Marketing [] 2. Management [] 4. Design []	5. Training [] 6. Other [7]
Terms and conditions for transfer of technology: (basis for co-operations joint ventures; know-how agreement to patent rights, etc.) Know-by agreement	(specify)

	UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
	Product(s) manufactured:	PHOTOVOLTAIC CELLS AND MODULES
	photovoltaic solar modules	
	Name and address of manufacturer (including telephone FRANCE-PHOTON Tel.: (45) 16015 Angoulême-Cedex (France) Tlx.: 790	9) 92 49 -2
	Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
	- 40 employees. (1/1/81). - 8.000.000 F (1980) annual sales. - 2 000 040 F capital.	
	Contact person: Mr. P.E. Sarre	
	Description of product (main data and specifications):
	Photovoltaic solar modules (2 - 144 W)	
	:	
	Terms of delivery (mode of payment): Ex-factory: payment by letter of credit.	
	Price (valid at the time of issuance of respective d	ata sheet):
	Approximately FF70/W for large modules	
	Guarantees and maintenance service offered:	
_	1 to 5 years guarantee depending on type of utilizat	ion by customer.
	Description of technology offered: (for companies possessing know-how that might be maddeveloping countries)	e useful in the
	encapsulation of solar cells for manufacture of modul	és .
	Type of assistance offered:	
	1. Technical XX 3. Marketing []	5. Training [X]
	2. Management [] 4. Design [X]	6. Other [7] (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreference to patent rights, etc.)	reements; etc.
	Joint ventures with participation of our mother comp	oany "Moteurs Leroy-Somer" (see FRA-16)

Product(s) manufactured: Solar panels; Solar heaters; Oil furnaces for agricu.	FRA-12 COLLECTORS (FLAT PLATE SOLAR WATER HEATING SYSTEMS
Name and address of manufacture S.A. GIORDANO - Chemin St. Bernard 06220 Vallauris (FRANCE) Size and type of company: (number of employees; annual 70 Employees (subsidiary of Groupe Total Contact person: M. Nehlil	mixed
heaters 150 liters to 2,000 oil furnace 80,000 cal and Terms of delivery (mode of page of the content of the c	x 0,36) alu profile and copper pipes 0 liters. 120,000 cal. yment): ssuance of respective data sheet):
Type of assistance offered: 1. Technical (x) 2. Management () 4. Terms and conditions for tran	Marketing 5. Training \(\frac{1}{X} \) Design 6. Other (specify) sfer of technology: t ventures; know-how agreements; etc.

Unido data sheet on solar hardware and equipment	Reference No. FRA-13	
Product(s) manufactured:	COLLECTORS (FLAT	
Solar collectors;	PLATE)	
Solar water heating systems	SOLAR WATER HEATING SYSTEMS	
(domestic and large capacity); Solar-electric water heating systems;		
Name and address of manufacturer (including telephone	e and telex no.):	
_ ~ _ 0 0: /) 39 90 30 RO 431907 F	
Size and type of company:	<u>private</u>	
(number of employees; annual sales; share capital) Share capital: FF 12.000.000	governmental nixed	
Annual sales: FF 50.000.000 200 employees		
Contact person: Mr. Paul Dumas		
Description of product (main data and specifications): water heating system (capacity 150 1; 200 1; 300 1; and 500 - 1000 1) collectors (2m ² and 1.55 ²)		
Terms of delivery (mode of payment):		
FOB French port		
Price (valid at the time of issuance of respective data sheet): collectors 1.55 m ² FF 1.310,00; 2 m ² FF 1.823,00;		
Guarantees and maintenance service offered: collectors and solar water heating system: 5 year;	electric equitpment: 1 yr	
Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)		
Collectors; water heating		
Type of assistance offered:		
1. Technical 7 3. Marketing 7	5. Training [7	
2. Management / 4. Design /	6. Other (specify)	
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)		
Know-how agreements		

Unido data sheet on solar hardware and equipment	Reference '/o. FRA-14
Product(s) manufactured:	
- Solar collectors F 120	COLLECTORS (FLAT PLATE)
Name and address of manufacturer (including telephone LANDEX S.A. 40370 Rion des Landes (France) Tlx.: 570 Size and type of company: (number of employees; annual sales; share capital) 455 employees 200 000 000 Frs annual sales 8 000 000 Frs. share capital Contact person: Mr. A. Schwob) 57 11 68
Description of product (main data and specifications) Dimensions 2 400 x 600 Polyester frame Polyurethane insulation Conner absorber Glass or acrylic plate cover. Terms of delivery (mode of payment): 60 days. Price (valid at the time of issuance of respective day 760 Frs / collector HT ex factory Guarantees and maintenance service offered: 10 years	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
1. Technical / 3. Marketing /	5. Training 67
	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr refor a to patent rights, etc.)	eements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. FRA-15 Product(s) manufactured: WATER HEATING SYSTEMS -- solar hot water systems Name and address of manufacturer (including telephone and telex no.). LEMERCIER. Tei.: 834-91-01 2 Quai Adrien Agnés -93300 Aubervilliers (France) Tlx.: 210-727 Size and type of company: private bovernmental (number of employees; annual sales; share capital) mixed - 550 employees - C.A. 1980: 130 million FF Mr. C. Rabaron Contact person: Description of product (main data and s-cifications): Tank with or without heat exchanger, with or without complementary electric heating, with or without accessories for circulation and regulation. 150 - 200 - 300 - 500 - 1000 - 1500 - 2000 1 Terms of delivery (mode of payment): Irrev cable letter of credit or trade against documents Price (valid at the time of issuance of respective data sheet): FF 1.052 fob PS 150 with exchanger; \$200 ES without exchanger, with complimentary electheating FF 810 fob Guarantees and maintenance service offered: 10 yrs. in Europe; refund instead of guarantee for other countries. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Manufacture of reservoirs from corrosion proof tanks. Type of assistance offered: 1. Technical X 3. Marketing X7 5. Training [] 2. Management [7] 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to paten' rights, etc.) Know-how agreements.

UNITO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. FRA-16
Product(s) manufactured: photovoltaic cile and modules; * controls; refrigerators; ventilators; air mixers; air coelers * manufactured by France-Photon (FRA-11)	PHOTOVOLTAIC CELLS AND MODULES PHOTOVOLTAIC BASED SYSTEMS
Name and address of manufacturer (including telephone	and telex no.):
LEROY-SOMER Systèmes Solaired Telex: 790 16015 Amgouleme CEDEX (France) Size and type of company: (number of employees; annual sales; share capital) 8,000 employees annual sales: FF 1,500,000,000 capital: FF 69,240,000 Contact person: Mr. Dominique Mercier	• •
Description of product (main data and specifications) Solar generator GENESOL (20 W - 640W) High performance refrigerator for pharmaceuticals or operated by a solar generator GENESOL (288 Wc) Terms of delivery (mode of payment): as a rule, 30% down payment, remainder by bank draft month of de Price (valid at the time of issuance of respective da Guarantees and maintenance service offered: No maintenance required	food (-10/+10 C°) Plue at the end of the liver
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
, ==	5. Training [7]
2. Management 7 4. Design 7	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.) joint ventures	eementa; etc.

Unido data firet on solar hardware and equipment	Reference No. FRA-17
Product(s) manufactured:	
- Photovoltaic solar рижрѕ	SOLAR WATER PUMPS
Name and address of manufacturer (including telephone	and telex no.):
ETS-POMPES GUINARD Tel.: 788	
179 Bd St. Denis Courbevoie 92400 (France) Tlx.: 610	592 F
Size and type of company:	private
(number of employees; annual sales; share capital)	governmental mixed
- 2,600 employees 800.000.000 FF annual sales (Member of Grou - 31.500.000 FF capital	upe Leroy-Somer see FRA-16)
Contact person: Mr. J.R. Sébal	
Photovoltaic solar numps. Terms of delivery (mode of payment): By air or ship. Irrevocable confirmed letter of cre Price (valid at the time of issuance of respective da According to type of material. Guarantees and maintenance service offered: After sale service by local agents.	dit
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	E Macinia - /87
1. Technical \(\sumsymbol{\infty} \) 3. Marketing \(\sumsymbol{\infty} \) 2. Management \(\sumsymbol{\infty} \) 4. Design \(\sumsymbol{\infty} \)	5. Training [X] 6. Other [7]
	(specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.

 UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Product(s) manufactured: - Fot water systems	Reference No. FRA-18 SOLAR WATER HEATING SYSTEMS
Name and address of manufacturer (including telephone SALVA ECLAIR Z.I. "Les Paluds" 13400 Aubagne, (France) Size and type of company: (number of employees; annual sales; share capital) - 160 employees 40.000.000 F. annual sales - 1.980.000 F. share capital Contact person: Mr. M. Bruneton	private governmental mixed
Description of product (main data and specifications Solar water heater unit based on thermosiphon with exchanger	
Terms of delivery (mode of payment): ex- Marseille Price (valid at the time of issuance of respective delivery) FF 2.500 Guarantees and maintenance service offered:	ata sheet):
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
Type of assistance offered: 1. Technical X 3. Marketing C 2. Management C 4. Design C Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	5. Training [] 6. Other [] (specify) reements; etc.
License for menufacturing	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No.

Product(s) manufactured:

FRA-19

To production of single components; engineering of complete plants only

SOLAR ENGINGEERING AND DESIGN

Name and address of manufacturer (including telephone and telex no.):

SERI RENAULT INCOMISERIO

Tal.: (4) Cornelle (4) 0, 4 (1 4)

2, av. du Vieil stang 7890 Bois D'Arcy (France)

ক্রাকে: ১১৪০<u>৪০ চ</u>

Size and type of company:

private

(number of employees; annual sales; share capital)
470 PF 136 million; FF 5 million

governmentai mixed

Contact person: Mr. Hornard Aubert, Head, Department of Color Energy

Description of product (main data and specifications):

The installations offered have been designed to guit the specific requirements of the customer and in accordance with optimum technical economics

Terms of delivery (mode of payment):

To be negotiated with customer

Price (valid at the time of issuance of respective data sheet):

In accordance with manuscript standards

Guarantees and maintenance service offered:

Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

CEME, on one nearing company, assisted by other affiliates of the Groupe Renault, has experience in the transfer of texhnology.

Type of assistance offered:

- 1. Technical 🔯
- 3. Marketing [7]
- 5. Training \sqrt{x}

- 2. Management [7
- 4. Design
- 6. Other

(specify)

Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

Commercialization of licenses and know how; adaptation to technologies manufacturing methods used by customer.

Unido data sheet on solar hardware and equipment	Reference No. FRA-20
Product(s) manufactured:	
- Desalination plants.	DESALINATION EQUIPMENT AND SYSTEMS
Name and address of manufacturer (including telephone SIDEM Tel: 285 54 rue de Clichy 75009 Paris(France) Tlx.: 28 Size and type of company: (number of employees; annual sales; share capital) - 150 employees 200 MF annual sales - 12 MF share capital. Contact person: Mr. J.J. Libert	5 36 48
Description of product (main data and specifications) Desalination units of small capacity with high efficies solar installations for production of energy. Terms of delivery (mode of payment): Price (valid at the time of issuance of respective data Depends on capacity and efficiency of plant. Guarantees and maintenance service offered:	ency for coupling with
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
	5. Training [] 6. Other [] (specify) eements; etc.

] **** **
	Product(s) manufactured:	
	flat plate collector for domestic water heating	COLLECTORS (FLAT PLATE);
	and central heating; decalination clants	DESALINATION EQUIPMENT
		AND SYSTEMS
	Name and address of manufacturer (including telephone	e and telex no.):
9	OLEFIL Tel.	.: (68) 61 24 61
	omaine Beausoleil, Zone Industrielle Nord	0
	• • • • • • • • • • • • • • • • • • • •	ex: 500 891 F
	Size and type of company: (number of employees; annual sales; share capital)	private
	fr 8 million; FF 3.5 million	governmental mixed
	•	
		COVERNIA Discontino
1	Mr. Emmanuel Rosenstings, Export Mal Contact person: Commerciale, Tour Roussel Nobel, CE	
	Tel. 778 15 15; Telex: 630 906 Sep	
	Namaniakian as	\.
	Description of product (main data and specifications	/ -
	copper absorber and glass reinforced polyester case	
1	Terms of delivery (mode of payment):	
		on of credit
	elivery ex-factory Perpignan or CIP; payment by letter	1
	Price (valid at the time of issuance of respective da	ata sheet):
ı	2V (2x2) FF 2,043 T3V (3x2) FF 2,762	
(Juarantees and maintenance service offered:	
1	0 years guarantee	
·		
	Description of technology offered:	ì
	for companies possessing know-how that might be made	useful in the
	developing countries)	
:	manufacture of case and mounting of collector	
•	Type of assistance offered:	
	1. Technical 💆 3. Marketing 😥	5. Training [7]
•	2. Management / 4. Design /	6. Other (specify)
	Name and conditions for the second at the second	(Specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how ago	reamants: atc
	casis for co-operation; joint ventures; know-now ago reference to patent rights, etc.)	General S, CbC.
	Setting up of joint ventures	j
	- 0 1	İ

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No.

Unido data sheet on solar hardware and equipment	Reference No.
Product(s) manufactured:	FRA-22 COLLECTORS (MATERIAL FOR THE MANUFACTURE OF)
Name and address of manufacturer (including telephone SOLEMA Tel.: 385 72 27 8, Rue deathènes Telex: 660056 F 75000 Paris (France) Size and type of company: (number of employees; annual sales; share capital) 10 FF 2 million FP 850,000 (1980)	private governmental mixed
Mrs. Geneviève Laverne	
Description of product (main data and specifications) Extruded EPDM for the manufacture of solar collectors (with or without glass reinforcement)	:
Terms of delivery (mode of payment):	
Price (valid at the time of issuance of respective da FF $260/m^2$	ta sheet):
Guarantees and maintenance service offered: Guarante practically no maintenance required	ee 10 years
Description of technology offered: (for companies possessing know-how that might be made developing countries) Solar heating systems for swimming pools, domestic hose of green-houses	
Type of assistance offered:	67
	5. Training (X) 6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.
Joint ventures; know-how agreements	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	FRA-23
- Solar collectors.	COLLECTORS (FLAT PLATE
Name and address of manufacturer (including telephone SUDINOX - S.A. Tel.: (78) Route du Circuit 31.800 Saint Gaudens (France) Tlx.: 78	48) 24 71 50
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
- 55 employees (98% affiliate of Rosiere - 12 MF annual sales - 700,000 F capital Contact person: Mr.G.Jenny c/o SUDIMOX-ROSIERES 6 Place de la Prefecture - 18.000	s (1,600 employees 420 mill. F turnover 15 mill. F capital)
Description of product (main data and specifications) Solar collectors - complete range from 0.75 m ² to 2 Terms of delivery (mode of payment): Delivery by container. Payment by letter of cred Price (valid at the time of issuance of respective databout 700 F/m ²	.8 m ²
 Guarantees and maintenance service offered: 10 years.	
Description of technology offered: (for companies possessing know-how that might be made developing countries) Manufacture of solar collectors	useful in the
	5. Training [X] 6. Other [] (specify) eements; etc.
Licence of manufacture and transfer of know-how.	

	
UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. GFR-01
Product(s) manufactured:	see GFR-01 a - g
 Photovoltaic generator modules; Photovoltaic DC and AC power supplies	
Photovoltaic powered systems	
New Technologies, Space Division Sales Unconventional Energy Systems Industriestr. 29 P-2000 Wedel(FRG) Size and type of company. (number of employees; annual sales; share capital) 154,000 Employees 14,000,000,000 DM (7,400,000,000 US\$)Annual Sales; share Capital.	e: 0049-4103 x: 21 89 520 private governmental mixed
Contact person: Mr. K.P. Maass	
Description of product (main data and specifications):
(see following pages)	
Terms of delivery (mode of payment): FOR Hamburg Terms of payment: 100 % L/C 30 % of the order value 70 % on dispatch again Price (valid at the time of issuance of respective d	nst shipping documents.
Guarantees and maintenance service offered:	
Warranty: Generator modules 5 years for electric Photovoltaic system equipment 12-18 more	
Maintenance service: Complete service world-wide. Description of technology offered: (for companies possessing know-how that might be madedeveloping countries)	e useful in the
Advanced photovoltaic system development and appl Connected and combined systems (wind energy, et	
Type of assistance offered:	
1. Technical 📝 3. Marketing 🌅	5. Training [X]
2. Management 📝 4. Design 🔯	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	
Joint ventures, know-how agreements.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. GPR-01 a Product(s) manufactured: PHOTOVOLTAIC BASED Photovoltaic powered systems: SYSTEMS - water supply (WATER PUMPS) - water pumping Name and address of manufacturer (including telephone and telex no.): AEG-TELEFUNKEN see GFR-01 Size and type of company: private governmental (number of employees; annual sales; share capital) mixed Contact person: Description of product (main data and specifications): Universal Pump 200: solar generator foldable and easy to handle; also for charging batteries. Daily water supply about 30 m³, head 3 m. Rural Pump 860: solar generator area 20 m pump fixed installed for economical use of surface water; daily water supply about 100 m at a height of 10 m. Village Pump 2000: solar generator 32 m² supplying an optimized matched deep well pump, controlled by a special developed inverter. Daily water supply at 50 m depth about 25 m³. Price (valid at the time of issuance of respective data sheet): Universal Pump 200: US\$ 4,000/unit (delivery of 100 units) US\$ 17,000/unit (delivery of 10 units) US\$ 31,000/unit (delivery of 10 units) Rural Pump 860: Village Pump 2000: Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Type of assistance offered: 1. Technical /T 3. Marketing 5. Training (x) 6. Other 2. Management /7 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

 UNIDO DATA SHEET ON SCLAR HARDWARE AND EQUIPMENT	Reference No. GFR-01 b
Product(s) manufactured:	PHOTOVOLTAIC BASED
Photovoltaic powered systems:	SYSTEMS
- water supply - water purification	
 Name and address of manufacturer (including telephone	e and telex no.):
see GFR-01	
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
Contact person:	
Description of product (main data and specifications) Water purification: mechanical and chemical cleaning of System with photovoltaic generator, electrical equipme water treatment unit. AQUACLEAN 150 (potable water 1 m³/d) Terms of delivery (mode of payment): see GFR-01 Price (valid at the time of issuance of respective da AQUACLEAN 150: US\$ 1,500/unit (delivery of 100 units AQUACLEAN 2500: US\$80,000/unit (delivery of 10 units Guarantees and maintenance service offered: see GFR-01	of river or lake water. ent and integrated m ³ /d) ata sheet):
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
	5. Training [X]
	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements; etc.

Unido data sheet on solar hardware and equipment	Reference No. GFR-01 c
Product(s) manufactured:	PHOTOVOLTAIC BASED SYSTEMS
Photovoltaic powered systems:	
water supplywater desalination	(DESALINATION)
Name and address of manufacturer (including telephone	and telex no.):
see GFR-01	
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
Contact person:	
Sopros B 5 Sopros S 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	pressure-driven membrane s of generator, electrical alled in a special shelter). table water m3/d m3/d m3/d m3/d ata sheet): 00/unit 00/unit
Type of assistance offered: 1. Technical [X] 3. Marketing [] 2. Management [X] 4. Design [X] Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	5. Training [X] 6. Other [7] (specify) reements; etc.

Unido data sheet on solar hardware and equipment	Reference No.		
Product(s) manufactured:			
Photovoltaic powered systems:	PHOTOVOLTAIC BASED SYSTEMS		
- cooling systems	(SOLAR COOLING)		
Name and address of manufacturer (including telephone	e and telex no.):		
aec-telefunken			
see GFR-01			
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed		
Contact person:			
Description of product (main data and specifications) - Block and crushed ice production plants (e.g. for opurposes) 500-1.500 kg ice/day;			
 Deep-freezing and cool storage plants; freezing ten storage for 10 m² and more. 	mperature -18°C,		
Terms of delivery (mode of payment):			
Price (valid at the time of issuance of respective da Total system prices on request	ata sheet):		
Guarantees and maintenance service offered: See GFR-01			
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the		
Type of assistance offered:			
1. Technical 3. Marketing	5. Training [x]		
2. Management 7 4. Design x	6. Other [7] (specify)		
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.		

Unido data sheet on solar hardware and equipment	Reference No. GFR-O1 e				
Product(s) manufactured: Photovoltaic powered systems: - refrigeration	PHOTOVOLTAIC BASED SYSTEMS				
Name and address of manufacturer (including telephone AEG-TELEFUNKEN see GFR-01					
Size and type of company: (number of employees; annual sales; share capital)	private governmentai mixed				
Contact person:					
Description of product (main data and specifications): 130 W p.v. system with 24 V battery 500 Ah charge regulator and cool book 265 Wp p.v. system with 24 V battery 75 Ah charge regulator and refriger (temperature for both + 0 - 5°C) Terms of delivery (mode of payment): Price (valid at the time of issuance of respective data sheet): - cool box 60: US\$3,350/unit (delivery of min. 100 units); - cool box 130: US\$5,950/unit """" Guarantees and maintenance service offered:					
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the				
Type of assistance offered: 1. Technical // 3. Marketing // 2. Managament // 4. Design // Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	5. Training [] 6. Other [] (specify) reements; etc.				

Unido data sheet on solar hardware and equipment	Reference No. GFR-O1 f
Product(s) manufactured: Photovoltaic powered systems: communication; television set	PHOTOVOLTAIC BASED SYSTEMS
 Name and address of manufacturer (including telephone AEG TELEFUNKEN see GFR-01	e and telex no.):
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
Contact person:	
Description of product (main data and specifications) - simple standard TV set b/w 14" (with NI Cd battery - standard TV set b/w 20" (with Pb battery) - special TV set colour 20" (with Pb battery))
Terms of delivery (mode of payment): Price (valid at the time of issuance of respective da simple standard TV US\$ 1,300/unit; standard TV US\$ 1 special TV US\$ 3,000/unit (weather proof case not in Guarantees and maintenance service offered:	.500/unit: 100 units
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
	5. Training [] 6. Other [] (specify) eements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	PHOTO VOLTAIC BASED SYSTEMS
Photovoltaic DC and AC power supplies	
Name and address of manufacturer (including telephone AEG-TELEFUNKEN see GFR-01	and telex no.):
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
Contact person:	
Description of product (main data and specifications) Photovoltaic power plants (0.1-100 kWp solar packs for communication; signalling; transportation; pumping; so industry; residential electricity	r:
Terms of delivery (mode of payment):	
Price (valid at the time of issuance of respective da Total system prices on request	ta sheet):
Guarantees and maintenance service offered:	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
	5. Training &7
	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.

							
	UNIDO DATA SI	HEET ON SOL	AR HARDWARE	AND EQUIPMEN	rr	Reference GFR-02 a	
	Product(s) m	anufactured	:		7		
		pipe solar OHP 2A, POH	collector; F 2F, DOHF	20.		COLLECTOR	š
	Name and add DORNIER SYST 7990 Friedri Federal Repu	EM GMBH chshafen 1,	(P.O. Box	Tel	ephone:	ond telex no 07545/8385 073210-0	
	Size and typ (number of e			; share capi		private governmenta mixed	ı
	8,000 Emp US\$ 400,0						
	Contact pers	on: Dr. A	. Ziemer, A	bt. VA			
	Description of 6 heat-pipsheets	pes with se	lectively c	oated absorbe	r area,	double glas	s cover
		Collecto		Weight		per.temp.	Cost US\$
	DOHP 2A DOHP 2E DOHP 2C	5,5 m 4,2 m 2,7 m		262 kp 205 kp 148 kp	10	5° C 5° C 5° C	2,200, 2,000, 1,700,
	Terms of del 1/3 after con elapsed, 1/3 Price (valid	nfirmation after deli	of contract very / inst	, $1/3$ after hallation of h	ardware.		time has
	•	iption of p		-			
	Guarantees a Yes.	nd maintena	ance service	offered:			
	Description (for compani developing c	es possessi		that might	be made i	seful in th	ne
	Type of assi	stance offe	ered:				
	1. Technical		3. Mar	ceting []	5	. Training	X
<u> </u>	2. Managemen	it [X]	4. Desi	.gn 📝	6.	(specify)	
		o-operation	n: joint ver	of technolog ntures; know-		ements; etc.	•
1	To be	determined	upon reques	t of the cust	omer.		

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. GFR-02 b Product(s) manufactured: CONCENTRATING -- Electronic tracking unit with sensor for COLLECTORS concentrating solar collectors. Name and address of manufacturer (including telephone and telex no.): Telephone: 07545/83853 DORNIER SYSTEM GMBH. 7990 Friedrichshafen 1, (P.O. Box 1360) Telex: 073210-0 Federal Republic of Germany Size and type of company: private governmental (number of employees; annual sales; share capital) -- 8,000 Employees -- US\$ 400,000,000 Contact person: Dr. A. Ziemer, Abt. VA Description of product (main data and specifications): Two-axis tracking system, cross-slit sensor with viewing angle of $\pm 60^{\circ}$ 2-speed dc-motors 24 \pm 4 V, temperature range of operation -20° C...+35° C weight 7,5 kp Terms of delivery (mode of payment): 1/3 after confirmation of contract, 1/3 after half of the delivery time has elapsed, 1/3 after delivery / installation of hardware. Price (valid at the time of issuance of respective data sheet): US\$ 2,000--Guarantees and maintenance service offered: Yes Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

Type of assistance offered:

1.	Technical	X	3.	Marketing	[]	5.	Training	
2.	Management	\square	4.	Design	Æ.	6.	Other (specify)	

Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

To be determined upon request of the customer.

	GFR-02 c
Product(s) manufactured: Solar desalination module, type 80.	SOLAR DESALINATION EQUIPMENT AND SYSTEMS
7990 Friedrichshafen 1, (P.O. Box 3160)	and telex no.): : 07545/83853 : 073210-0 private governmental mixed
max. brine temperature 90° C, a) support Distilled water yield 80 1/d, b) heat p c) distil c) periph Terms of delivery (mode of payment): 1/3 after confirmation of contract, 1/3 after half of elapsed, 1/3 after delivery / installation of hardware Price (valid at the time of issuance of respective datus \$ 20,500	of 4 main components: ting structure ipe unit ler eral components the delivery time has e.
Guarantees and maintenance service offered: Yes.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
" <u>"</u>	5. Training X7 6. Other
To be determined upon request of the customer.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No.

Unido data sheet on solar hardware and equipment	Reference No. GFR-02 d
Product(s) manufactured:	
Solar powered water pump	SOLAR WATER PUMPS
Name and address of manufacturer (including telephone	and telex no.):
DORNIER SYSTEM GMBH, Telephone 7990 Friedrichshafen 1, P.O. Box 1360	: 07545/83853 : 073210-0
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
3,000 US\$ 400,000,000	
Contact person: Dr. A. Ziemer, Abt. VA	
Description of product (main data and specifications) Hydraulic output 6 m ³ /h at 25 m head (Variation ot 50 Heat-pipe flat plate collector area: 20m ² , automatic 500 W/m ² insolation, motor capacity 200 - 1500 W. Terms of delivery (mode of payment): 1/3 after confirmation of contract, 1/3 after half of elapsed, 1/3 after delivery / installation of hardwar	m possible) start-up at the delivery time has
Price (valid at the time of issuance of respective da Upon request.	
Guarantees and maintenance service offered: Yes.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered: 1. Technical (\overline{X}) 3. Marketing \Box	5. Training X7
	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.
To be determined upon request of the customer.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. GFR-02 e Product(s) manufactured: SOLAR COOLING SYSTEMS -- Solar cooling plant. Name and address of manufacturer (including telephone and telex no.): Telephone: 07545/83853 DORNIER SYSTEM GMBH Telex: 073210-0 7990 Friedrichshafen 1,(P.O. Box 1360) Federal Republic of Germany Size and type of company: private (number of employees; annual sales; share capital) governmental mi xed -- 8,000 Employees -- US\$ 400,000,000 Contact person: Dr. A. Ziemer, Abt. VA Description of product (main data and specifications): Main components: Heat-pipe flat plate collector area of 20 m2, absorption cooling unit output 3 kW, cooling chamber of 12 m 3 at 6-80 C maximum stored cooling energy 10 kWh, cooling water temperature 300 C. Terms of delivery (mode of payment): 1/3 after confirmation of contract, 1/3 after half of the delivery time has elapsed, 1/3 after delivery / installation of hardware. Price (valid at the time of issuance of respective data sheet): Upon request. Guarantees and maintenance service offered: Yes. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Type of assistance offered: 1. Technical X 3. Marketing // 5. Training X7 2. Management X 6. Other 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) to be determined upon request of the customer.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. GFR-02 f
Product(s) manufactured:	ad COLLECTOFO
Coler collector test desility	
	e and telex no.): : 07515/#1953 : 07315-0
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
7,000 Employees 800 Ego,000,000	
Contact person: Dr. A. Diemer, Abt. VA	
Description of product (main data and specificati ns)):
Test facility for solar collectors for verification of solar collectors according to BUA and AUMPAN stand	
•	
Terms of ielivery (mode of payment): 1/3 after confirmation of contract, 1/3 after half of elapsed, 1/3 after lelivery / installation of hardwar Price (valid at the time of issuance of respective day Upon regrest.	℃.
Guarantees and maintenance service offered: Yes.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
Type of assistance offered:	
1. Technical 💢 3. Marketing 🌅	5. Training [X]
2. Management [X] 4. Design [X]	<pre>6. Other [7 (specify)</pre>
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.
To be determined upon request of the customer.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No.

GFR-02 g

Product(s) manufactured:

SOLAR LABORATORY EQUIPMENT

-- Instrument for measuring emissivity-values of selectively coated surfaces.

Name and address of manufacturer (including telephone and telex no.):

DORNIER SYSTEM GMBH

Telephone: 07545/83853

7990 Friedrichshafen 1, (P.O. Box 1360)

Telex: 073210-0

Federal Republic of Germany

Size and type of company: (number of employees; annual sales; share capital) private governmental

-- 8,000 Employees -- US\$ 400,000,000

Contact person:

Dr. A. Ziember, Abt. VA

Description of product (main data and specifications):

Measurement of the diffuse reflection of the sample surface in the infrared range is correlated to the total emission of the object at room temperature in a wave length range of 0,6-40 m.

Terms of delivery (mode of payment): 1/3 after confirmation of contract, 1L3 after half of the delivery time ahs elapsed, 1/3 after delivery / installation of hardware.

Price (valid at the time of issuance of respective data sheet):

US\$ 23,000--

Guarantees and maintenance service offered:

Yes.

Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

Type of assistance offered:

- 1. Technical X7
- 3. Marketing /7
- 5. Training \sqrt{y}

- 2. Management X7
- 4. Design
- 6. Other (specify)

Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

To be determined upon request of the customer.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. GFR-03 Product(s) manufactured: CONCENTRATING COLLECTORS WIND EMERGY -- Concentrating solar collectors 'HELIOMAN'; -- Complete solar test and demonstration plants for process heat and electricity; --- Wind energy converter 'AEROMAN'. Name and address of manufacturer (including telephone and telex no.): M.A.N. MASCHINENFABRIK AUGSBURG-NÜRNBERT Telex: 05-215 934 Aktiengesellschaft, Neue Technologie, Dept. EA D-8000 München 50, Dachauer Strasse 667 (FRG) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed -- 40,000 Employees. -- 5000m DM--Annual Sales. -- 358m DM--Share Capital. Dipl.-Ing. J. Siemer (Tel. 089 1480 3456) Contact person: Dr.-Ing. G. Isenberg (Tel. 089 1480 3243) Description of product (main data and specifications): HELIOMAN: 32 m², max. output 16 kW therm, 2 axis tracking, max. process heat temperature 300°C; 11 m rotor diameter, output 10 - 20 kWel, horizontal axis, AEROMAN: two-blade rotor. Terms of delivery (mode of payment): To be discussed. Price (valid at the time of issuance of respective data sheet): HELIOMAN: 54,000 DM/unit ex works. AEROMAN: 80 000 DM/unit. Guarantees and maintenance service offered: Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Layout, engineering, manufacturing, erection of test and demonstration plants in close cooperation with local partners. Type of assistance offered: 3. Marketing [7] 1. Technical X 5. Training [] 2. Management /x/ 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Project cooperation, license.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.	
Product(s) manufactured: - Evacuated flat plate collectors; - Parabolic dish collectors; - Heliostats incl. field tracking system; - Organic Rankine cycles; - Data Acquisition System; - Solar Process Heat Generation Systems (desalination cooling etc.); - Wind Rotors	GFR-04 COLLECTORS (FLAT PLATE, PARABOLIC); CONCENTRATING COLLECTORS PRIME MOVERS; DESALINATION AND COOLING SYSTEMS; WIND ENERGY	
Space Division	lephone: (089) 6000-5521 lex: 5287-0 mbb d	
Contact person: DiplIng. Helmut Hopmann Head of Energy Department		
Description of product (main data and specifications) Terms of delivery (mode of payment): Price (valid at the time of issuance of respective da Guarantees and maintenance service offered:		
Description of technology offered: (for companies possessing know-how that might be male useful in the developing countries) On-going co-operative projects in: European Economic Communities (EEC); India, Algeria, Mexico, Kuwait, Senegal Type of assistance offered:		
1. Technical 💆 3. Marketing 🗷	5. Training F 6. Other (specify)	
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.) Joint ventures; governmental agreements	, ,	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
 Product(s) manufactured:	GFR-05 PHOTOVOLTAIC CELLS AND
Photovoltaic solar cells, modules and photovoltaic power supply systems.	MODULES
Components Group, Dept. DH STR,	e: 0807 (600-490 x: 30108-70 private governmental mixed
Description of product (main data and specifications Silicon solar cells SFH 120; SFH 121; SFH 122; Solar panels (18 cells - SFH 140-18) (20 cells - SFH 140-20) (36 cells - SFH 140-36) (36 nalf cells - SFH 141-36) Terms of delivery (mode of payment): Photovoltaic components: ex stock, Photovoltaic systems: mecording to design. Price (valid at the time of issuance of respective of min. 100: SFH 120 DM 20.90 min. 10: SFH 140-18 SFH 121 18:30 SFH 140-20 Guarantees and maintenance service offered: 12 months	data heet): DM 569; 140-3c DM1,13)
Description of technology offered: (for companies possessing know-how that might be made developing countries)	de useful in the
Manufacture of photovoltaic components and silicon	n base material.
Type of assistance offered:	
1. Technical (X) 3. Marketing (X)	5. Training [X]
2. Management X 4. Design X	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreemence to patent rights, etc.)	greements; etc.
To be established individually for each country, retransfer to participating in local loint ventures for	

marketing.

Unido data sheet on solar hardware and equipment	Reference No.
Product(s) manufactured:	ISR-01 COLLECTORS (FLAT PLATE
Flat sclar collectors and Complete thermosyphonic systems.	COLLECTORS (FLAT PLATE
 Name and address of manufacturer (including telephone AMCOR EXPORT COMPANY LTD. Telephone P.O. Box 2850 Tel Aviv (Israel) Telex Size and type of company:	
(number of employees; annual sales; share capital) See brochures.	governmental mixed
Contact person: Mr. D. Henigman	
 Description of product (main data and specifications)	:
·	
Terms of delivery (mode of payment): 6 - 8 weeks	
Price (valid at the time of issuance of respective da	ta sheet):
Guarantees and maintenance service offered: Yes.	
 Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Manufacturing process, planning of central systems	
Type of assistance offered:	
1. Technical (X) 3. Marketing $[T]$	5. Training X7
2. Management / 4. Design / x	6. Other
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.
Upon application.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. ITA-01 Product(s) manufactured: PHOTOVOLTAIC CELLS AND MODULES -- Photovoltaic modules; -- Photovoltaic systems. Name and address of manufacturer (including telephone and telex no.): ANSALDO C.P.A. Telephone: (010) 4105-488 Pivisione Automazione Via N. Lorenzi, 8 Genova (ITALY) Telex: 270098 AMSLCA I private Size and type of company: governmental (number of employees; annual sales; share capital) mixed 20,275 Employees. 1,100,000,000 US\$--Annual Sales. 100,000,000 US\$--Share Capital (see Annex). Dr. Zani, Eng. Pidatella, Dr. Fassino Contact person: Description of product (main data and specifications): Photovoltaic modules: AP 20 (P $_{M}$ = 20 W) AP 33 (P $_{M}^{H}$ = 33 W) see annex.

Photovoltaic systems for telecommunication, cathodic protection, isolate houses, pumping, etc.
Terms of delivery (mode of payment):

1 ÷ 50 melules ready.

More than 50: to be concerted payment against documents. Price (valid at the time of issuance of respective data sheet):

10-15 MCE/Wp, depending on quantity.

Guarantees and maintenance service offered:

1 year from production defects, less than 20% of degradation in 5 years.

Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

Technology for photovoltaic solar modules and systems.

Type of assistance offered:

1. Technical $\sqrt{\chi}$ 3. Marketing $\sqrt{\chi}$ 5. Training $\sqrt{\chi}$ 2. Management $\sqrt{\chi}$ 4. Design $\sqrt{\chi}$ 6. Other (specify)

Terms and conditions for transfer of technology:
(basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

Know-how agreements.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. ITA-02 Product(s) manufactured: PHOTO VOLTAIC CELLS AND MODULES Solar electrical modules (photovoltaics); Regulating equipment for photovoltaic systems; Support structures Name and address of manufacturer (including telephone and telex no.): Telephone: 2-8242091 ARCO Solar Europe S.p.A. Viale Milanofiori Fabbr. E/5 Telex: 33 18 37 D'TCU: I 20094 Assago (Milano), ITALY Size and type of company: private (number of employees; annual sales; share capital) governmental mired ARCO INC. 50,000 employees; US\$30 billion sales ARCO Solar Europe S.p.A.; US\$ 20 million sales Contact person: Mr. R. Carboni or Mr. A. Manfredi Description of product (main data and specifications): ASI 16-2000 Solar Module (35 Wp); ASI 16-2300 Solar Modules (37 Wp); AC solar powered systems (120/240 or 220 V); Remote home power systems; Terms of delivery (mode of payment): FOB Los Angeles; FOB Trieste; FOB Singapore Letter of credit Price (valid at the time of issuance of respective data sheet): US\$ 8 - 12 per peak Watt Guarantees and maintenance service offered: 5 years warranty on modules Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) very restricted Type of assistance offered: 1. Technical 3. Marketing 5. Training $\sqrt{X7}$ 2. Management F7 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) I's specific precedent

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	COLLECTORS (FLAT PLATE)
FiRUKAWA Solar System:	SOLAR HOT WATER SYSTEMS
o Hot Water Supply System o Hot Water Supply & Heating System o Hot Water Supply, Heating & Cooling System	
Name and address of manufacturer (including telephone THE FURUKAWA ELECTRIC CO., LTD. Head Office: 6-1, Marunouchi 2-chome, Chiyoda-ku, Tok Phone: (03)286-3211/3219 (Overseas Operations Dvn.) Telex: FECTOK J 23907/23857 Size and type of company: (number of employees; annual sales; share capital) The company was established in 1884. o Number of Employees: 8,000 o Annual Sales: 450 billion yen (Approx. 2 billion U.) o Paid-up Capital (as of June, 1981); 22 billion yen (private governmental mixed S.Dollar) Approx. 100 million U.S.
MR. HIROYUKI OTAKE or MR. YOSHIO SAHEKI (Overseas Op-	Dollar) carations Dvn.)
Description of product (main data and specifications) FURUKAWA Solar Collectors (Flat Panel type Solar Colle o Type: FZ-1 (Aluminium Casing) o ": FZ-2 (FRP Casing) o ": FZ-3 (Aluminium Casing) o ": FZ-H (-ditto, but for higher temperature use Terms of delivery (mode of payment): Standard shipment from Japan shall be one month after firm order. (Payment shall be generally by irrevocable Price (valid at the time of issuance of respective day Please refer to the attached sheet. Guarantees and maintenance service offered: Standard guarantees shall be valid for our product qua of period after installation. This clause, however,	For details, please refer to our catalogs our receipt of your e L/C) ata sheet):
consultation and changes in time. Description of technology offered: (for companies possessing know-how that might be made developing countries) Not specified.	e useful in the
Type of assistance offered: 1. Technical 3. Marketing 5. Marketing 5. Management 5. Managem	5. Training 6. Other (specify)
(basis for co-operation: joint ventures; know-how agr reference to patent rights,etc.) Any type of co-operations Adaptable to the actual situation fo - Exclusive or Non-exclusive Agency/Technical Assistance/ Licenses Agreement/Joint Venture	countries concerned

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	SOLAR COOLING SYSTEMS
Solar air conditioning system equipment.	
17th floor, Mita-Kokusai Building	e: 03-455-8811 c: 2426794 private governmental mixed
Overseas Dept., Solar Air Condition	ning and das Equip. Div.
Description of product (main data and specifications) -Solar energized water fired absorption chillers -Flat plate solar collector panels (4,000 - 300,000) -Cooling towers -Air handling units -System control devices -Solar water heaters -Fan coil units -Boilers Terms of delivery (mode of payment): To be dispatched within 90 days after receipt ob Price (valid at the time of issuance of respective day Guarantees and maintenance service offered:	O Kcal./Hr)
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
Type of assistance offered: 1. Technical	5. Training X 6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how ag reference to patent rights, etc.)	reements; etc.

	Unido data sheet on solar hardwarf and equipment	Reference No. NET-O1
	Product(s) manufactured:	SOLAR RADIATION MEASUREMENT INSTRUMENTS
	<pre> Pyranometers; Albedometer; Diffuso-pyranometer; Actinometer;Solar integrators and strip chart recorders.</pre>	SOLAR LABORATORY EQUIPMENT
	P.O. Eox 507	e and telex no.): e: 015-561000 c: 38137
	Size and type of company: (number of employees; annual sales; share capital) 120 Employees.	private governmental mixed
	D. Glds.: 13.000.000Annual Sales. D. Glds.: 450,000Share Capital.	
	Contact person: G. Windmeijer - Dalft, Oct. 9, 198	31
	Description of product (main data and specifications) See above.):
•	Terms of delivery (mode of payment): Payment in 30 a invoice, net.	days from date of
	Price (valid at the time of issuance of respective da	ata sheet):
	3 months validity from date of our quotations.	
	Guarantees and maintenance service offered: We guard and functioning of our instruments during the period during 12 months from date of supply.	ntee the good workmanuhip of guarantee, i.e.
	Description of technology offered: (for companies possessing know-how that might be made developing countries)	e usefu in the
	Type of assistance offered:	
	1. Technical 🌠 3. Marketing 🌅	5. Training []
	2. Management [] 4. Design []	6. Other (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	

Unido data sheet on solar hardware and equipment	Reference No. NET-02
Product(s) manufactured:	COLLECTORS (FLAT PLATE
Aluminium windows, facades, etc Solar collectors (water)	TOTAL CONTRACTOR OF THE PROPERTY OF THE PROPER
Name and address of manufacturer (including telephone MYS AND VALE B.V. Telephone: 030-Nyverheidsweg 19, Postbus 95 6541 C/Nymegen, (NETHERLANDS) Telex: 4802 Size and type of company: (number of employees; annual sales; share capital) 80 Smployees.	772146
Contact person: Ir. J. Th. Rutgers	
Description of product (main data and specifications)	:
Solar collector with an absorber of stainless stee of glass fibre reinf. polyester. Dimensions: 1845 x 1175 x 68 mm.	1 covered with 2 sheets
Terms of delivery (mode of payment): ca. 3 months.	
Price (valid at the time of issuance of respective da	ta sheet):
ca. Hfl 750.	
Guarantees and maintenance service offered: 5 years.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
1. Technical	5. Training []
2. Management [] 4. Design []	6. Other
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. NET-03 Product(s) manufactured: COLLECTORS (EVACUATE THES) -- Evacuated solar thermal receiver tubes. Theses tubes are solar components, meant to be integrated into a solar collector module by companies that produce solar systems. (Not intended for end users!) Name and address of manufacturer (including telephone and telex no.): NA. PHILIPS' GLOEILAMPENFABRIEKEN Telephone: 040-756568 C.D. Light-car and miniature lamps, Solar collectors Bldg. EH2 - Emmasingel 5612 AZ Telex: 35000-PHTC-NL/NLEE VLT Eindhoven (NETHERLANDS) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed Large multi-national company. Contact person: A.H.J. van Rijn Description of product (main data and specifications): The highly selective absorber plate is sealed into the evacuated glass tube. Heat transfer to the ouside of the tube takes place via a heat pipe. The protruding condensor is to be thermally connected to the user system by the sclar systems manufacturer. Terms of delivery (mode of payment): Delivery from stock. Price (valid at the time of issuance of respective data sheet): At large production quantities, the price-level of this advanced collector will be equal to, or less than, that of flat plate collectors. Guarantees and maintenance service offered: 5 year guarantee. Product is maintenance-free. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Assistance comprises solar thermal design and application know-how. Type of assistance offered: 1. Technical X 3. Marketing 5. Training 2. Management /7 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Depending on size and technological level of customer, and on further conditions, any kind of commercial agreement may be considered.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference Nc. SPA-01 Product(s) manufactured: COLLECTORS (FLAT PLATE) -- Flat plate collectors. TEMPERATURE DIFFERENTIAL -- Electronic thermometer. CONTROLS -- Electronic differential control. Name and address of manufacturer (including telephone and telex no.): Telephone: 310006/321250 Poligono Industrial Villa Rosa, Nave 32 Málaga (SPAIN) Size and type of company: private (number of employees; annual sales; share capital) governmental -- 15 Employees. mixed -- 40,000,000--year Contact person: Mrs. Helma Wikholm Description of product (main data and specifications): Copper plate with copper tubing in polyester or aluminum box. Measurements of collector: width 180 cm. height 110 cm. depth 10 cm. Weight: 42 K. Terms of delivery (mode of payment): 50% to be paid with the signing of the order. 30% after delivery of the materials. 20% when system is working. Price (valid at the time of issuance of respective data sheet): Collector in polyester box: Pts. 39,500,--Collector in aluminum box: Pts. 35.500.--Guarantees and maintenance service offered: 2 year guarantee. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Type of assistance offered: 3. Marketing 1. Technical X7 5. Training 2. Management /7 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

SWI-01 Product(s) manufactured: SOLAR COOKER -- FUNGRIL - Schar cooker for solid and liquid food. Name and address of manufacturer (including telephone and telex no.): ETAMPES MECHANIONE Tel.: 022-400440 1,30591 L. Serafini S.A. 9, Chemin Du Centurion 71x.: 290 06 CH 1227 Carouge, GENEVE (Switzerland) Size and type of company: private (number of employees; annual sales; share capital) government al mixed -- L50,000. Sfrs. -40 employees. Sungril manufacturing forms only a part of the total production programme. which consists of mass-production of high quality pressed and machined metal parts for other companies. CONTACT PERSON: Mr. L. Serafini or Mr. Sigvard Heringa, Consultant for export_licenses. Description of product (main data and specifications): A parabolic mirror (199cm) made of eloxided aluminium composed of 12 interchangeable elements; adjustable to the sun position. Easy and quick assembly or dissasembly in only h minutes. No tools needed - no maintenance; Just cleaning of mirror Terms of delivery (mode of payment): Letter of credit. Price (valid at the time of issuance of respective data sheet): Per unit 2001 - 1000 = 130.5 frs.DELIVERY: = 170 Sfrs. FOB - 100 1000 -= 150 Sfrs. 4001 - 6000 = 125.Sfrs. 3 weeks __ 500 Geneva 3000 ~ **- 500 - 1000** = 145 Sfrs. more than 6000 = 120. Sfrs. 2 mos. 4 mos. 6000 ---= 135 Sfrs. -1001 - 2000In urgent cases quicker Guarantees and maintenance services offered: deliveries can be discussed. High quality materials are used for fabrication no maintenance is needed. of Sungril; replacement parts can be supplied; Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Assistance can be given for the setting up of a complete workshop. Possibly a cooking pan with a permanent black-nonshiny underside should be supplied with each sungril Type of assistance offered: 1. Technical /7 Marketing / / 5. Training /K7 2. Management [7] 5. Other 4. Design (specify) (eventually) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Turnkey project; know how agreement; licence production. Eventually a part of the material can be supplied—the eloxided aluminium.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No.

Unido data sheet on solar hardware and equipment	Reference No. SWI-O2
Froduct(s) manufactured:	SOLAR RADIATION MEASUREMENT INSTRUMENTS
Instruments for measuring selar radiations.	
 CH-3303 Jegenstorf (SWITZERLAND) Teler Size and type of company: (number of employees; annual sales; share capital)	e and telex no.): 2: 031-96 00 11 32386 private governmental mixed
250 Employees. Contact person: P. Brombacher	
Description of product (main data and specifications Sunshine duration measurement units; Solarmeters; Suntracers. Terms of delivery (mode of payment): Cash on delivery or credit.):
Price (valid at the time of issuance of respective de SOLAR 110 SFr. 3,730 SOLAR 112 SFr. 8,230 SOLAR 11B SFr. 2,285 SOLAR 118 SFr. 1,100 Guarantees and maintenance service offered: 6 months service by local representatives.	SOLAR 119 SFr. 1,500
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
Type of assistance offered: 1. Technical (y) 3. Marketing (x) 2. Management (7) 4. Design (7)	 5. Training
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how ag reference to patent rights, etc.)	(specify)

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. UK-01 Product(s) manufactured: TEMPED AMIDE DIFFERENTIAL CONTROLS -- Electronic controls. Name and address of manufacturer (including telephone and telex no.): Telephone: (0332) 362334 ALFA JOULE LTD. 45, Friar Gate Derby, DE 1, IDA, (U.K.) Size and type of company: private (number of employees; annual sales; share capital) government al mi xed -- 2 Directors. -- £ 30,000--turnover. -- f 1,000--Share Capital. Contact person: Mr. John Phillips Description of product (main data and specifications): Temperature differential controller - entirely solid state 180 to 240 V a. . (also remote readout electronic thermometer) Terms of delivery (mode of payment): Forward exchange contract until credit reference established. Price (valid at the time of issuance of respective data sheet): £26-50 plus taxes and carriage where applicable for quantities over 50. Guarantees and maintenance service offered: Replacement of failed units returned to U.K. within 1 year of supply. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Design and manufacture of standard and purpose-made controls. Type of assistance offered: 1. Technical X 3. Marketing 5. Training [7 6. Other 2. Management /7 4. Design (specify) Consultancy. Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

	Unido data sheet on solar hardware and equipment	Reference No. UK-02
	Product(s) manufactured:	COLLECTOPS (FLAT PLATE)
	solar flat plate collectors.	
	Name and address of manufacturer (including telephor ANTARIM LTD. Wedglen Industrial Estate, Bepton Rd. Midhurst, Sussex GU29 9RE (U.K.) Size and type of company: (number of employees; annual sales; share capital) 10 employees £250,000 Contact person: P.N. Stonehouse, Managing Director	081 2115
	Description of product (main data and specifications All copper flat plate solar collectors in 1.5, 1.7 sizes made of roll bond copper also header and ris Terms of delivery (mode of payment): Letter of credit. Price (valid at the time of issuance of respective of 1.5 = £120 1.75 = £175 2.2 = £210 ex works Guarantees and maintenance service offered: 5 year guarantee.	75, and 2.2 sq.M.
	Description of technology offered: (for companies possessing know-how that might be made developing countries) Type of assistance offered:	
	1. Technical 🛣 3. Marketing 💭	5. Training
]	2. Management [] 4. Design []	6. Other
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.
I	To he negotiated.	

 UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-03
Product(s) manufactured:	SHADING DEVICES
Solar shading screens for windows.	
	e and telex no.): unt 451111 ext.422 38 and 86219
Size and type of company: (number of employees; annual sales; share capital) - 2000 employees. Member of the Colt International	private governmental mixed
Contact person: D.R. Hawkins, Overseas Sales Manage	•
Description of product (main data and specifications) Koolshade solar protection screens.	
Terms of delivery (mode of payment):	
Price (valid at the time of issuance of respective da	ta sheet):
Guarantees and maintenance service offered:	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
	5. Training (X) 6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	,

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. UK-04 Product(s) manufactured: COLLECTORS (FLAT PLATE) CONCENTRATING COLLECTORS -- Solar collectors. Name and address of manufacturer (including telephone and telex no.): COMMERCIAL SOLAR ENERGY LTD. 1 Woodthorpe Rd. Mapperley, Nottingham NG3 5QH (U.K.) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed ...is a section of C.L.S. Group of Companies based in Nottingham... -- 100 employees - £1 000 000 total turnover per annum. Contact person: C. Davis, Managing Director Description of product (main data and specifications): Flat plate solar collectors/parabolic reflective type sun tracking unit, for high temperature hot water. Terms of delivery (mode of payment): C.I.F. on receipt of irrewocable letters of credit. Price (valid at the time of issuance of respective data sheet): Flat plate collectors £90 per sq.m. - Reflective parabular £140 per sq.m. Guarantees and maintenance service offered: Replacement of defective parts - 6 months; 12 months guarantee. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Design systems for hot water service and bulk storage, Attachment of desalination equipment to solar and to air conditioning. Type of assistance offered: 1. Technical 😿 3. Marketing 5. Training 2. Management /7 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Joint ventures, or sale of manufacturers patent licence.

Unido data sheet on solar hardware and equipment	Reference No. UK-05
Product(s) manufactured:	SLECTIVE SURFACES
Glass; glass-ceramics; and ceramic material for solar applications	
Name and address of manufacturer (including telephone CORWING Tel Corning Glass Works (Solar Materials) Corning, New York 14830	and telex no.): : 607-974-7611
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
Contact person: Mr. James L. Blackburn, Product Mana	ger
•	ells; ces;
Terms of delivery (mode of payment):	
Price (valid at the time of issuance of respective da	ta sheet):
Guarantees and maintenance service offered:	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
There of a said and offered	
Type of assistance offered: 1. Technical	5. Training /7
	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	eements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-Oó		
Product(s) manufactured:	HEAT EXCHANGERS		
fin type heat exchangers packaged air conditioning equipment solar panels			
Name and address of manufacturer (including telephone DELTA R.A. LIMITED Tel. Have Hollands Road, Haverhill, Suffolk, U.K. Tlx. 8145	erhill(0440)702653		
Size and type of company: (number of employees; annual sales; share capital)	private governmental		
150 employees. The company is a wholly owned subsidiary of the Delta Group p.l.c.	mixed		
Contact person: Mr. Michael F.J. Brown, Managing Dire	ector		
Description of product (main data and specifications) As above - heat exchangers made to customer require	ements.		
Terms of delivery (mode of payment):	ŧ		
90 days export (negotiable)			
Price (valid at the time of issuance of respective da	ata sheet):		
To be discussed as per individual requirements.			
Guarantees and maintenance service offered:	ın.		
Full normal guarantee and complete technical back-u	——————————————————————————————————————		
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the		
Leading designer and manufacturer of a wide range of with full R and D facilities and highly experienced t			
Type of assistance offered:			
1. Technical $\sqrt{\mathbf{x}}$ 3. Marketing $\boxed{}$	5. Training K7		
2. Management 7 4. Design 2	6. Other (specify)		
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how ago reference to patent rights, etc.)	reements; etc.		

Unido data sheet on solar hardware and equipment	Reference No. UK-07
Product(s) manufactured:	SOLAR WATER HEATING
copper combined hot water tanks.	SYSTEMS
copper solar hot water storage tanks.	
Name and address of manufacturer (including telephone ELSY AND GIBBONS LTD. Tel. 0632 Simonside, South Shields, Tyne and Wear NE34 9PE,(U.K.) Telex 538 Size and type or company:	.561474
(number of employees; annual sales; share capital)	governmental mixed
- 130 employees - £4,000,000annual sales Subsidiary of B.I.C.C.	
Contact person: B. Jordan, Technical Manager	
. 20 000000, 2000000000	
Description of product (main data and specifications):
SHS hot water tank, 115 l,standard capacity, combined with cooper solar panel and copper pipewor	rk
Terms of delivery (mode of payment): Various.	
Price (valid at the time of issuance of respective dates	ata sheet):
Depends on product and model.	
Guarantees and maintenance service offered:	
No maintenance service - no moving parts.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
Type of assistance offered:	
1. Technical /X/ 3. Marketing	5. Training [7
2. Management	6. Other X7 (specify) Manufacture.
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreference to patent rights, etc.)	
to be negotiated.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. ur -08 COLLECTORS (FLAT PLATE) Product(s) manufactured: SOLAR WATER HEATING -- Solar collectors. SYSTEMS -- solar hot water sotrage tanks TEMPERATURE DIFFERENTIAL -- differential controller CONTROLS -- temperature indicator/monitor unit. Name and address of manufacturer (including telephone and telex no.): Tel. (0480)51181 ESTEC - SOLAR ENERGY Division of Thermopac Co. Ltd. St. Peter's Road, Huntingdom Cambs. (U.K.) Tlx. 32107 - Thepac G Size and type of company: private (number of employees; annual sales; share capital) governmental mixed Contact person: W.M. Feitelson, Esq. Description of product (main data and specifications): EKS-100 solar collectors (1.08 m net absorber area); weight: 43 kg Electronic master control unit (differential control and upper temp. control) Temperature indicator unit; combined control/storage unit; solar storage Terms of delivery (mode of payment): Various - Negotiable. Price (valid at the time of issuance of respective data sheet): (UK retail) ex factory collectors £144.44 - 152.78/m² Guarantees and maintenance service offered: 10 year guarantee on collectors. I year other products. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Manufacturing know-how See attached booklet "Opportunity for Solar system design know-how) Profitable Diversification". Marketing know-how Type of assistance offered: 1. Technical $\sqrt{\chi}$ 3. Marketing \sqrt{x} 5. Training [y] 2. Management $\sqrt{\chi}$ 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

Unido data sheet on solar hardware and equipment	Reference No.
Product(s) manufactured:	HEAT STORAGE MEDIA
-'SUNSPEED'solar cylinders	
Name and address of manufacturer (including telephone GLEDHILL WATPR STORAGE LTD. Tel. Blace Sycamore Trading Estate, Squires Gate Lane Plackpool, Lancs, U.K. FY4 3RL Tlx. 6757 Size and type of company: (number of employees; annual sales; share capital) 100 employees (8 regional manufacturing units) £2.5m turnover Contact person: H.A. Gledhill, Joint Managing Direct	ckpool 401494 O private governmental mixed
Description of product (main data and specifications) Copper cylinders and combination tanks for pre-heat Dual coil units.	
Terms of delivery (mode of payment): Payment abroad by bank transfer. 7 days in UK; ?-4 weeks delivery by forwarding agen Price (valid at the time of issuance of respective da Strictly rise and fall in line with copper price a Guarantees and maintenance service offered: 5 year guarantee.	ata sheet):
Description of technology offered: (for comparies possessing know-how that might be made developing countries)	e useful in the
	5. Training [] 6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. üK – '∙) Product(s) manufactured (and marketed): TEMPERATURE DIFFERENT. CONTROLS PHOTOVULTAIC CELLS -- Custom designs of electronic control units COLLECTORS (differential controllers, P.V. Power Supplies) SOLAR COOKERS -- Marketing of: Solar cookers, P.V. panels, solar collectors, solar calculators -- Energy conservation and auditing. Name and address of manufacturer (including telephone and talex no.): Tel. 995-2575, 995-0693, 994-6477 HELIOTECHNIC LTD. 10, Barley Mow Passage, London Wh (U.K. Tlx. 8811413 Size and type of company: private governmental (number of employees; annual sales; share capital) -- approx. 47 (world-wide) Contact person: Mr. John Coubassakos, General Manager Description of product (main data and specifications): For custom designs, according to glients specs. For other products see enclosures. Terms of delivery (mode of payment): international Money order Either FOB, or CIF Coutations. Invoice Irrevocable letter of credit. Price (valid at the time of issuance of respective data sheet): Modules: £228-275 (FOB Brunnels); Collectorn: £55-)6 (FOB Athens) Solar cooker: £84 Guarantees and maintenance service offerei: Electronic equipment: 1 year Collector, photovoltaics: 5 years. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Latest developments especially on custom designs. Type of assistance offered: 1. Technical \sqrt{X} β . Marketing X5. Training 177 2. Management /X7 6. Other (specify) Installations Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Joint ventures; know-how agreements; out-right sales.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. IR-11 PHOTOVOLTAIC MODULES Product(s) manufactured: FU^TOVOLTAIC BASED SYSPEMS -- Solar photovoltaic power supply systems SOLAR CONTROL SYSTEMS and some subsidiary load equipment, solar modules, electronic control systems, batteries. Name and address of manufacturer (including telephone and telex no.): Tel. 0844 201681 LUCAS BP SOLAR SYSTEMS LTD. Windmill Road Tlx. 83165 Haddenham, Bucks HP17 8JD (UK) private Size and type of company: (number of employees; annual sales; share capital) governmental mı xed company established in Feb. 1981 and jointly owned by BP and Lucas Industries Valerie D. Watson Contact person: Description of product (main data and specifications): Engineered solar photovoltaic power systems and some subsidiary load equipment. Terms of delivery (mode of payment): Letter of credit Price (valid at the time of issuance of respective lata sheet): Sizing of systems is dependent on geographical area and type of application and priced according to design. Guarantees and maintenance service offered: Technical advisory, training courses and installation assistance where necessary. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

Type of assistance offered:

1. Technical	<u> </u>	3.	Marketing	\Box	5.	Training	ĹΣĴ
2. Management	<i></i>	4.	Desi <i>g</i> n		6.	Other (specify)	$\mathcal{L}\mathcal{J}$

Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; ctc. reference to patent rights, etc.)

Subject for future discussion.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No. UK-12

Product(s) manufactured:

-- Ultra light, tough, efficient all-purpose solar collectors, fittings and controls.

COLLECTORS (FLAT PLATE) SOLAR CONTROL SYSTEMS

Name and address of manufacturer (including telephone and telex no.):
McKEE SOLARONICS LTD., Telephone: +44 261 773535

12. Queenborought Rd.

Southminster, Essex, CMO 7AB (U.K.)

Telex: 995585 KEESOL C

Size and type of company: (number of employees; annual sales; share capital)

private governmental

Contact person: Simon F. Mitchell

Description of product (main data and specifications):

1.5, 2.5 and 3.6m² solar collectors available fully assembled or as crated kits. Full control and fitting systems are also supplied. The collectors us the revolutionary Volume Conduction Process.

Terms of delivery (mode of payment): Normally ex-stock or 3-4 weeks payment by account, cash or letter of credit, depending upon location.

Price (valid at the time of issuance of respective data sheet):

Currently £139.17 F.O.B. London

Guarantees and maintenance service offered: A full five year guarantee against faulty materials or workmanship on our part is given.

Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

Advise on all aspects of the utilization of solar energy.

Type of assistance offered:

- 1. Technical 🔯
- 3. Marketing
- 5. Training X

- 2. Management []
- 4. Design 🔯
- 6. Other (specify)

Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

Subject of discussion.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-13
Product(s) manufactured:	TEMPERATURE DIFFERENT.
differential temperature switch for solar heating control.	
Name and address of manufacturer (including telephone MICROVITEC LTD. Tel.:(0 P.O. Box 188, Bolling Rd. Telex: Bradford BD4 7TU, West Yorkshire (U.K.) Size and type of company: (number of employees; annual sales; share capital) - 67 Employees £2.1MAnnual sales £157.5 K share capital. Contact person: Mr. A. Martinez- MD	274) 39 0 011
Description of product (main data and specifications DTS1 electronic control system for operation of circ (control range 0-100°C)	
Terms of delivery (mode of payment): Foreign sales	letter of credit.
Price (valid at the time of issuance of respective d	ata sheet):
Depending on quantities from £37.75 Guarantees and maintenance service offered: One year guaranteed - all product return made up	to fullspec.
Description of technology offered: (for companies possessing know-how that might be made developing countries) We will sell the rights to manufacture product about the countries of the countr	
all drawings and specs - in any one country at a time	
Type cf assistance offered:	
1. Technical 💹 3. Marketing 💭	5. Training [
2. Management [] 4. Design []	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreement rights, etc.)	
total package of know-how with details of how to maintain, drawings, circuits specification - one package of money not exceeding £3,500.	install, test and kage for a

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	SELECTIVE COATINGS
Selective surfaces for solar collectors	
- Maxorb solar foil	
- Maxorb plate - Skysorb stainless steel	
Name and address of manufacturer (including telephone	e and telex no.):
MPD TECHNOLOGY LIMITED Tel. 021 Wiggin Street	454 5895
Birmingham Bl6 OAJ U.K. Size and type of company:	private
(number of employees; annual sales; share capital) Subsidiary of International Nickel Ltd. > 50,000 employees \$3000 million	governmental mixed
Contact person: Dr. Peter C. Jones, Manager; Mr. Roy	Blower, Assistant Manage
Description of product (main data and specifications) Maxorb Foil for application to aluminium. Copper of Skysorb treated stainless steel for fabrication of	or Steel Collectors
Terms of delivery (mode of payment):	
30 days nett.	
Price (valid at the time of issuance of respective da	ata sheet):
Depends on quantity. Large quantities: \$5.00/sq. met	
and - £4.50/sq. met Guarantees and maintenance service offered: 3 year guarantee	re for anisons.
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Mara of a sistema of the sistema of	
Type of assistance offered: 1. Technical // 3. Marketing //	5. Training /7
	6. Other [7] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. UK-15 CONCENTRATING COLLECTORS Product(s) manufactured: TEMPERATURE DIFFERENT. CONTROLS -- Suntracker Concentrator -- Sunstat -- Remometer Name and address of manufacturer (including telephone and telex no.): NATURAL ENERGY JERSEY LTD Tel. (0534) 45541 Rue Fondon, Airport Road St. Peter, Jersey, Channel Islands U.K. Tlx. 4192341 CHACOM G Size and type of company: private (number of employees; annual sales; share capital) governmental mixed -10 employees.(present staff--increasing rapidly) -£85,000 Share capital -£200,000 annual sales (increasing rapidly) Contact person: Patrick S. Attenborough, Managing Director Description of product (main data and specifications): Suntracking line focus concentrating solar collector including electronic control unit. Temperature differential switch and remote reading thermometer. Terms of delivery (mode of payment): ILC against shipping documents. Price (valid at the time of issuance of respective data sheet): Prices on application. Guarantees and maintenance service offered: Nominal 12 months, servicing by appointed licensees. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) We offer exclusive licenses to manufacture and install the collector units buying from us the control system. Type of assistance offered: 3. Marketing [X] 5. Training 67 1. Technical X 6. Other 2. Management [7] 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Exclusive license for geographical area. Initial small lump sum and

continuing annual consultancy fee. British patented product.

Date of issue: March 1982

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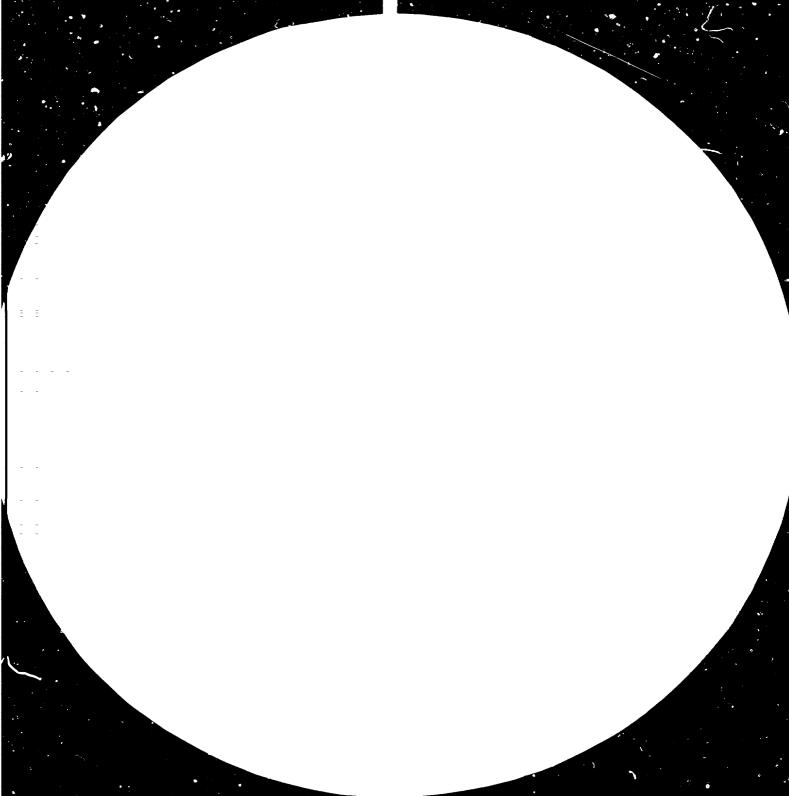
UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. üK−ió Product(s) manufactured: SOLAR WATER HEATING SYSTEMS -- Folar water heating collectors; -- Solar air heating collectors; -- Complete solar water heating system with integral storage tank. Name and address of manufacturer (including telephone and telex no.): OCEANWARE LTD. Telephone: Much Wenlock(0950) Stretton Rd, Much Wenlock, 727777 Shropshire, (U.K.) Telex: 010881 Size and type of company: private (number of employees; annual sales; share capital) governmental m: xed -- 12 Employees. -- £250,000.--Annual Sales. -- f 15,000.--Share Capital. Contact person: I.G. Reddihough Description of product (main data and specifications): 1. All copper cin + tube, highly absorptive coating, class or synthetic 2. Aluminium convolute sheet in 'sandwich' form. Absorptive coating, galvanized case. 3. Copper collector as detailed with 3m area, 1751tr. storage tank with Terms of delivery (mode of payment): thermosyphon system(ic, somplete unit Small quantities ex-stock, others to requirements, payment by irrevocable letters of credit or Bank Draft. Price (valid at the time of issuance of respective data sheet): 1. £90. per sq.m; 2. £60. per sq.m; 3. £270. complete. Guarantees and maintenance service offered: 1. 10 year; 2. 5 year; 3. 2 years. Generally no maintenance required. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Design facilities from colar systems to total low energy building; Production techniques; Product export. Type of assistance offered: 1. Technical \sqrt{X} 3. Marketing /X7 5. Training 2. Management /X √X √X 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Licensing agreements, possible joint venture schemes.

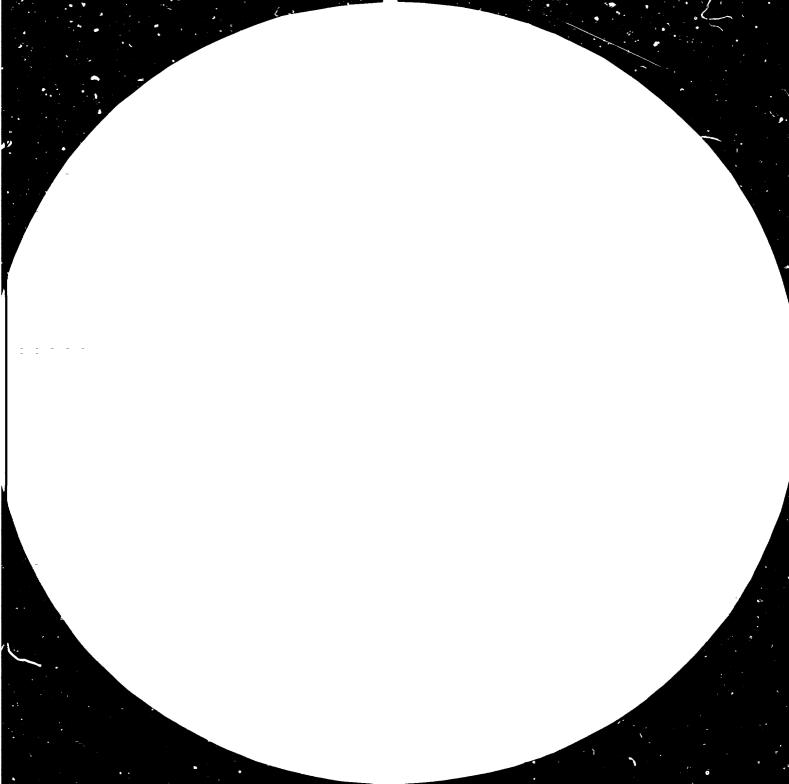
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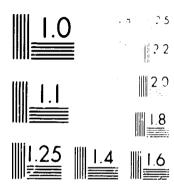
	UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-17
	Product(s) manufactured:	DESIGN OF SOLAR SYSTEM
	Design and development expertise.	
<u></u>		
	Name and address of manufacturer (including telephone FENDAR TECHNICAL ASSOCIATES LTD., Telephone Hamp Industrial Estate Old Taunton Road, Fridgwater, Somerset (U.K.) Telephone	e: 0278 56888
	Size and type of company: (number of employees; annual sales; share capital)	<u>private</u> governmental
	35 Employees. £500,000 £5,000	mixed
	Contact person: M.D. Novels	
-	Description of product (main data and specifications) Design and build special systems only. 'erms c' delivery (mode of payment): Letter of credit. Price (valid at the time of issuance of respective definitions)	
	To fixed quotation.	
	Guarantees and maintenance service offered:	
	Description of technology offered: (for companies possessing know-how that might be made developing countries) Design and manufacture of special solar energy sy Colar/mechanical conversion for electricity gener Solar heating, cooling and energy storage.	stems.
	Type of assistance offered:	
l I	1. Technical 📈 3. Marketing 🌅	5. Training []
	2. Management 7 4. Design X	6. Other [] (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.
	Direct contact for development of new products for to manufacture	r foreign company

UNIDO DATA SHEET ON SOLAR HARDWARF AND EQUIPMENT	Reference No. UK-18
Product(s) manufactured:	COLLECTORS
PLANET SOLAR COLLECTOR.	(FLAT PLATE)
Name and address of manufacturer (including telephone PERCY LANE LIMITED, LICHFIELD ROAD, TEL: 08	
TAMWORTH, STAFFORDSHIRE, ENGLAND. TLX: 34	122
Size and type of company: (number of employees; annual sales; share capital) 170 EMPLOYEES. £3m ANNUAL SALES. WHOLLY OWNED SUBSIDIARY OF PERCY LANE GROUP LIMITED	<pre>private governmental mixed , BIRMINGHAM, ENGLE</pre>
Contact person: DR. D. RICHARDSON.	
FLAT PLATE GLAZED CLLLECTOR WITH HIGH EFFICIENCY η o = 0.76, U = 4.7. WATTS/M ² /OC.	
	E PAYABLE ON SICHT
Terms of delivery (mode of payment): BILL OF EXCHANGE Price (valid at the time of issuance of respective of lm ² Collector: quantity basis 50 off. Prices give quantities. Guarantees and maintenance service offered:	ata sheet): £85. p
Terms of delivery (mode of payment): BHL OF EXCHANGE Price (valid at the time of issuance of respective of lm ² Collector: quantity basis 50 off. Prices give quantities. Guarantees and maintenance service offered: 2 year guarantee.	ata sheet): £85.]
Terms of delivery (mode of payment): BILL OF EXCHANGE Price (valid at the time of issuance of respective of lm ² Collector: quantity basis 50 off. Prices give quantities. Guarantees and maintenance service offered:	ata sheet): £85. p
Terms of delivery (mode of payment): BILL OF EXCHANGE Price (valid at the time of issuance of respective of lm ² Collector: quantity basis 50 off. Prices give quantities. Guarantees and maintenance service offered: 2 year guarantee. Description of technology offered: (for companies possessing know-how that might be made)	ata sheet): £85. point for different the second in the
Terms of delivery (mode of payment): BILL OF EXCHANGE Price (valid at the time of issuance of respective of lm2 Collector: quantity basis 50 off. Prices give quantities. Guarantees and maintenance service offered: 2 year guarantee. Description of technology offered: (for companies possessing know-how that might be madeveloping countries) company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of parts of the company willing to licence either assembly of the company will be	ata sheet): £85. point for different the second in the
Terms of delivery (mode of payment): BHL OF EXCHANGE Price (valid at the time of issuance of respective of lm2 Collector: quantity basis 50 off. Prices give quantities. Guarantees and maintenance service offered: 2 year guarantee. Description of technology offered: (for companies possessing know-how that might be madeveloping countries) Company willing to licence either assembly of parts on mutually acceptable terms.	ata sheet): £85. point for different the second in the









UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-19
Product(s) manufactured:	SOLAR WATER HEATING SYSTEMS
Solar water heating systems,	
controllers	
plumbing accessories support structures.	
Prescot Rd, West Park Bldg.,	e and telex no.): ::St.Helens (0,44) 28882 extn.2578
Size and type of company:	private
(number of employees; annual sales; share capital)	governmental
Subsidiary of major glass manufacturer.	mixed
Contact person: Mr. A. Rimmer	
Description of product (main data and specifications) 1.94m x 0.92m x 0.15m glass reinforced box iwth 4mm glazing over a matt black copper tube and fin absor with 65mm fibreglass. Terms of delivery (mode of payment): Letter of credit or equiv., F.O.B. U.K. Price (valid at the time of issuance of respective da f145/m² less trade discounts up to 25%. Guarantees and maintenance service offered:	n toughened float glass
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Design manufacture and installation of components	
system and controls for domestic, commercial or indus	strial application.
Type of assistance offered:	
1. Technical 😿 3. Marketing 💯	5. Training []
2. Management [7] 4. Design [y]	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements; etc.
Negotiable.	

UNIDO DATA SHEET ON SOLAR HARIWARE AND EQUIPMENT

Reference No. UK-20

Product(s) manufactured:

SOLAR CONTROL SYSTEMS HEAT PUMPS

-- Control systems for solar energy systems, heat pumps, energy storage systems, and wind generators.

HEAT PUMPS ENERGY STORAGE WIND ENERGY

Pomestic appliance enonomisers.

Name and address of manufacturer (including telephone and telex no.): PRECISION ELECTRONIC CONTROLS T.TD., 14-16 Cannon St., Wellingborough, Northants, U.K.

Size and type of company: (number of employees; annual sales; share capital)

private governmental mixed

-- 31 Employees.

-- £250,000.--Annual Sales.

-- £100.--Share Capital.

Contact person: F.J. Elderkin

Description of product (main data and specifications):

List as above. Specifications vary, as the majority of systems are tailor made for each installation.

Terms of delivery (mode of payment):

Nett 30 days.

Price (valid at the time of issuance of respective data sheet):

quoted on request for specific equipment.

Guarantees and maintenance service offered:

12 months from point of sale.

Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

Feasability of energy conservation systems and advisory service, backed up by equipment supply and commissioning.

Type of assistance offered:

1. Technical $\sqrt{\chi}$

3. Marketing

5. Training /7

2. Management /7

4. Design

6. Other

(specify) Manufacturing

Terms and conditions for transfer of technology:

(basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

Quotation initially, followed by 505 deposit in advance balance payable on completion.

	UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-21
-	Product(s) manufactured:	COLLECTORS (FLAT PLATE)
	Flat plate solar collector.	
	Cheney Manor	e: 0793-28440 t: 449-543 private governmental mixed
	Description of product (main data and specifications) 1 3/4 m ² flat plate solar collector with heat pipe Terms of delivery (mode of payment): Nett 30 days.	
	Price (valid at the time of issuance of respective da £150.00 each Guarantees and maintenance service offered: 5 years. Replacement exchange £30.00	ata sheet):
	Description of technology offered: (for companies possessing know-how that might be made developing countries) Willing to licence part manufacture, distribution servicing.	
	Type of assistance offered: 1. Technical 3. Marketing 2. Management 4. Design	5. Training [X] 6. Other [] (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to pater; rights, etc.) Joint venture, licence: M/F	reements; etc.
1		

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-22
Product(s) manufactured:	COLLECTORS (FLAT PLATE)
<pre> Flat plate solar collectors, Solar cylinders.</pre>	
Name and address of manufacturer (including telephone REMROD ENGINEERING LTD. Telephone 257 Dukesway, Team Valley Trading Estate Gateshead, Newcastle upon Tyne (U.K.) Size and type of company: (number of employees; annual sales; share capital) - il employees - £250,000.00annual sales - £5000.00share capital Contact person: Mr. R.L. Dormer	•
Description of product (main data and specifications) 1.0 and 1.5 metre single glazed collector. All coppe Glass reinforced plastic case. Terms of delivery (mode of payment): Letter of credit. Price (valid at the time of issuance of respective data Approximately £60.00 per sw. metre ex works. Guarantees and maintenance service offered: one year guarantee.	er absorber.
Description of technology offered: (for companies possessing know-how that might be made developing countries) Type of assistance offered: 1. Pechnical 7 3. Marketing 7 2. Management 7 4. Design 7 Terms and conditions for transfer of technology:	5. Training [7] 6. Other [7] (specify)
(basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements; etc,

	
Unido data sheet on solar hardware and equipment	Reference No. UK-23
Product(s) manufactured:	TEMPERATURE DIFFERENTIAL CONTROLS
Differential temperature controllers.	CONTRODO
Absolute temperature controllers.	
Digital thermometers.	
7 Burrell Buildings, Chartwell Rd,	e and telex no.): e: (09063) 64423/65410 x: 87515 private governmental mixed
Contact person: Mr. Peter Holy, Technical Director	
Description of product (main data and specifications Various types of DTC, diff. variable 2-9 degC, optemperature readout.	
Terms of delivery (mode of payment): Usually ex-stocable L/C, Pani	ck, payment by irrevo- k Draft, etc.
Price (valid at the time of issuance of respective day	ata sheet):
Lowest cost PTC approximately £45 in 1-piece quan	tities (July 1981)
Guarantees and maintenance service offered:	
Service available from factory in Lancing.	
	e useful in the opment work; ction capacity available.
Type of assistance offered:	
1. Technical X 3. Marketing X	5. Training []
2. Management 7 4. Design X	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.) To be negotiated at the time.	reements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-24
Product(s) manufactured:	COLLECTORS (FLAT FLATE
Solar collectors for low temperature applications.	
Robinson House, Winnall Ind. Estate	e and telex no.): e:Winchester (09c2) - 61777 ani 64111 x: 47714)
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
15 Employees. £500,000	
Contact person: N.A.C. Spelman	
Terms of delivery (mode of payment): To be negotiate Price (valid at the time of issuance of respective days to a collector: £76.00 (ex works) Guarantees and maintenance service offered: 2 year guarantee	
Description of technology offered: (for companies possessing know-how that might be made developing countries) Technology relating to the product offered from or	
Type of assistance offered:	
1. Technical 📝 3. Marketing 💢	5. Training []
2. Management [] 4. Design [X]	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No.
Product(s) manufactured:	SOLAR ENERGY SYSTEMS
Colar senerator systems including hardware and centrol electronics.	
Name and address of manufacturer (including telephon FOLAPAK LTD. Tel. 0630 bobinson House, Station Hd. Columbia, Washirm Tel. 0630 Type and Wear NE36 TEU (1995) (Size and type of company: (number of employees; annual sales; share capital) - 10 - 15 employees - £500,000 upwards	h71525 private governmental
Contact person: Mr. G.A. Finch	
Description of product (main data and specifications folar generator systems designed for any application frandard eminment is available however.	
Terms of iclivery (mode of payment):	
30 days net	
Price (valid at the time of issuance of respective d	(ata sheet):
dependent on system being sold.	
Guarantees and maintenance service offered: To cust but generally eighteen months and maintenance to be an order.	
Description of technology offered: (for companies possessing know-how that might be madeleveloping countries)	
Colar generator systems designed to minimise cost ar maintain a guaranteed system operation.	nd system size, but to
Type of assistance offered:	
1. Technical KJ 3. Marketing [X]	5. Training []
2. Management 🖅 4. Design 💢	
Terms and conditions for transfer of technology: (basic for co-operation: joint ventures; know-how agreeference to patent rights, etc.) to be discussed.	

UNITED DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. **UK-26** Product(s) marketed: SULAR WATER HEATING SYSTEMS -- Supply and install large range of equipment for various solar water heating applications. Name and address of manufacturer (including telephone and telex no.): Telerhone: 01 (40 (555) SOLARTRAPS LTD. Boundary House Telex: 8504.04 HUTLAG REF.C.T Crowdon Lane, Banstead, Currey SM/ 3BW (UK) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed Small company; -- 8 Employees. -- Approx. Sales: £250,000. Contact person: Mr. Eclert A. White Description of product (main data and specifications): Polypropylene solar panels for low temperature applications. Boxed copper panels with and without selective finish. Unboxed collector panels. 'Control equipment. Terms of delivery (mode of payment): Megotiable. Price (valid at the time of issuance of respective data sheet): Juarantees and maintenance service offered: Manufacturers sugrantees from one to ten years, depending on product. 2 year workmanship guarantee on installation. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Considerable experience in the design and engineering of solar water heating systems for projects of all sizes including several systems with over 300 m² of solar collector. Experience of large hotel systems overseas. Type of assistance offered: 1. Technical X 3. Marketing X7 5. Training 4. Design 2. Management /X/ 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joing ventures; know-how agreements; etc. reference to patent rights, etc.) consultancy agreement, possible joint ventures.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. UK-27
Product(s) manufactured:	TEMPERATURE DIFFERENT.
Solar differential controller Type SC 801	
Agent for collectors and Solar Kits.	
Name and address of manufacturer (including telephone SOLIGHT SYSTEMS Tel.0742 30 Solar Heating Engineers 7 The Green, Totley, Sheffield S17 4AT (U.K.)	
Size and type of company: (number of employees; annual sales; share capital)	<u>private</u> governmental mi xed
Contact person: Director, I.P. Roberts Dip.Eng.	
Description of product (main data and specifications)	:
Controlor operates on 240V a.c. (at request on 12V d. preset temporature difference of 4°C; sensors have a working range of -5°C - 120°C.	c.);
Terms of delivery (mode of payment): Cash with order - nett.	
Price (valid at the time of issuance of respective da	ta sheet):
Guarantees and maintenance service offered: Full service facility + 1 yr. workmanship/parts defe	ect guarantee.
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
1. Technical 🛒 3. Marketing 🌅	5. Training []
2. Management 7 4. Design 87	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	reements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. UK-28 COLLECTORS (FLAT PLATE) Product(s) manufactured: -- Flat plate glazed collectors of 1.75m² and 1m2 -- Self contained thermosiphon system. -- portable 10 liter solar water heater. Name and address of manufacturer (including telephone and telex no.): SPENCER SOLARISE LTD. Tel. Andover 51625 North Way, Walworth Industrial Estate, Andover, Hants. (UK) Tlx. 477081 Solar G. Size and type of company: private (number of employees; annual sales; share capital) Part of the Neil and Spencer Group of engineering companies, publicly quoted -- 1,200 employees -- group turnover for 1980 in excess of £27 million Contact person: M. G.F. Sharp, RA, MIQA, AMIProcE Description of product (main data and specifications): 1) 1.75m² and lm² collectors, roll bond aluminium absorber, to BS5918 tested by Agrement Board. . 2) TS thermosiphon system 2.2m copper tube on fin modular system. 3) Portable 10 litre solar water heater, integral insulated store and copper absorber. Terms of delivery (mode of payment): Normally I.L.O.C. Price (valid at the time of issuance of respective data sheet): Price for guidance: $1.75m^2 = £120$. $1.00m^2 = £90$. TS unit = £400 quantity Discounts may apply, portable = £65. Guarantees and maintenance service offered: Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Working experience of simple small scale heaters up to large scale industrial systems. Type of assistance offered: 3. Marketing [X] 1. Technical X 5. Training $\sqrt{\chi}$ 2. Management √x 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Licence to manufacture, etc.

UNIDO DATA SHEET ON SOLAR HARDWIRE AND EQUIPMENT	Reference No. USA-01
Product(s) manufactured:	CONCLATRATING COLLECTORS
Concentrating solar collectors line focus type, tracking.	
Name and address of manufacturer (including telephone	ne and telex no.):
AAI CORPORATION Tel. P.O. Box 6767 Cable AAI Baltimore, MC 21204 (USA) Tlx, 8-78 Size and type of company: (number of employees; annual sales; share capital) - 2500 employees - \$150 to 250 million (US)sales	CKYVL BALT. MD. -49 private governmental mixed
Contact person: R.A. Mosher, Director Internationa H.A. Wilkening, Manager Energy Sys	
Description of product (main data and specification	s):
Concentrating solar collector, line focus type, tra Minimum order array size = 1394M ² . For thermal use temperatures range of 94°C to 260°C.	cking with controls. and process heat in
Terms of delivery (mode of payment):	
Progress payments requested.	
Price (valid at the time of issuance of respective Base price = \$646.00/M ² FOB Baltimore, Maryland	data sheet):
Guarantees and maintenance service offered:	
l year on parts availability.	
Description of technology offered: (for companies possessing know-how that might be madeveloping countries)	de useful in the
State of the Arts - Concentrating thermal collector	rs.
Type of assistance offered:	
1. Technical (X) 3. Harkeving [] 2. Management [] 7. Design (Q)	5. Training [] 6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how a refer ace to patent rights, etc.)	Maintenance of Collec-
Joint ventures with host governments.	

UNIDO DATA SHEET ON SOLAR HARDWALE AND EQUIPMENT Reference No. USA-C? Product(s) manufactured: PHOTOVOLTAIC CELLS AND MODULES -- Photovoltaic solar cells, modules and systems. Name and address of manufacturer (including telephone and telex no.): APPLIED SOLAR ENERGY CORPORATION Tel. (213) 968-6581 15251 E. Don Julian Rd. City of Industry, CA 91746 (USA) Tlx. 910-584-4890 Size and type of company: (number of employees; annual sales; share capital) Public company -- 230 employees -- \$10,000,000 -- 500,000 shares authorized Contact person: Wayne Stevenson, Vice President, Sales and Marketing Description of product (main data and specifications): Solar cell 3" .5volts at 1.3 amps 14% efficiency Solar modules 6/12/24volts .3 amps to 5 amps - 3 watts to 80 watts. Terms of delivery (mode of payment): Stock to 4 weeks - letter of credit Frice (valid at the time of issuance of respective data sheet): Call for specifics Guarantees and maintenance service offered: 1 yr/3 yrs/7 yrs. depending on product. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Optoelectronics device design and manufacture as well as photovoltaic cell and module design and production. Type of assistance offered: 1. Technical 3. Marketing \int . Training $\sqrt{\chi}$ 2. Management √x 4. Design 6. Other Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Know-how agreements.

'NITO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. USA-Ú3	
Product(s) manufactured:	PHOTOVOLTAIC CELLS AND MODULES	
Photowoltaic modules (devices which convert sun- light into direct current electricity)		
photovoltaic regulators and controllers.		
photovoitaic power systems (full systems of power supply, support structuring, power controllers		
and end-use or electrical load.)	· · · · · · · · · · · · · · · · · · ·	
Name and address of manufacturer (including telephone ARCO SOLAR, INC. Tel. (213)		
20554 Plummer St. Tlx. 18813i		
	94 2791 (access via TRT)	
Size and type of company: (number of amployees; annual sales; share capital)	private governmental mixed	
- over 600 employees.		
 largest manufacturer of photovoltaic modules in the operates large automated factory in California (US 		
Contact person: R. Carlson,		
Product planning and development		
Description of product (main data and specifications): ASI 16-2000 photovoltaic module 35 watts (peak) 11 lbs 4'x 1'15.5volts, 2.26 amps.		
ASI 16-2000 photovoltare module 35 watts (peak) 11 lbs 4'x 1'15.5 volts, 2.26 amps. ASI 16-2000 " " " 37 watts (peak) 11 lbs 4'x 1'16.1 volts, 2.3 amps. ASI 5-6600 " " " 35 watts (peak) 11 lbs 4'x 1'5.2 volts, 6.7 amps.		
Terms of delivery \ mode of payment):		
Immediate. Factory depots in Singapore and Europe.		
Price (valid at the time of issuance of respective data sheet):		
Cuarantees and maintenance service offered:		
5 year warranty on power output of modules.		
Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)		
<u> </u>	5. Training [X]	
2. Management 7 4. Design X Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr	6. Other [7] (specify)	
reference to patent rights, etc.)	ecments; etc.	

Unido data sheet on solar hardware and equipment	Reference No. USA-O:
Product(s) manufactured:	SOLAR COOLING SYSTEMS
Hot water energized chillers for use in air ccoling.	
Name and address of manufacturer (including telephone ARKLA INDUSTRIES INC. Tel. (812) P.O. Box 534 Evansville, Indiana 47704 (USA) Tlx. 27-844 Size and type of company: (number of employees; annual sales; share capital) 750 employees \$80M	424-3331
Contact person: John F. Burr	
Description of product (main data and specifications WF36: 3 ton absorption chiller for solar air condi (0.5 to 3.5 tons of cooling capacity); WF300: 25 tonabsorption chiller for solar air condi (7.5 to 26.5 tons of cooling capacity). Terms of delivery (mode of payment): Irrevocable le Price (valid at the time of issuance of respective day WF-36 - \$3600.00 WFB-300 - \$20,000.00 Guarantees and maintenance service offered: 5 Year WARRANTY.	tioning tioning - tter of credit.
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
Type of assistance offered: 1. Technical	5. Training (X) 6. Other (Specify)
(basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.
Technology will not be transferred.	



Unido data sheet on solar hardware and equipment	Reference No. USA-06
Product(s) manufactured:	SPECIAL GLAZINGS
TEDLAR (B) 400SE PVF Film.	
Name and address of manufacturer (including telephone E.I. DUPONT DENEMOURS AND CO., INC. Tel. 302-77. Polymer Products Department Concord Plaza-Talley Bldg. Wilmington, DE 19898 (USA) Size and type of company: (number of employees; annual sales; share capital) 125,000 employees \$12MM Contact person: Robert P. deBussy	e and telex no.): 2-5880 private governmental mixed
Description of product (main data and specifications) 4 mil film for outer/single glazing on flat plate so Terms of delivery (mode of payment): 30 days not Price (valid at the time of issuance of respective da \$10.40/lb. (29.7 cents/sq.ft) Guarantees and maintenance service offered:	lar collectors.
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in t'
	5. Training [] 6. Other [] (specify) eements; etc.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. USA-07 Product(s) manufactured: HEAT EXCHANGERS -- Finned tube heat exchangers (submersible) -- Tube by tube doublewall counterflow heat exchangers (external) Name and address of manufacturer (including telephone and telex no.): EDWARDS ENGINEERING CORPORATION Tel. 201-835-2808 101 Alexander Ave. Pumpton Plains, N.J. 07444 (USA) Size and type of company: private (number of employees; annual sales; share capital) governmental mi red - 350 employees. Contact person: Robert A. Pennabere Description of product (main data and specifications): Finned tubing: 1/2". 5/8",3/4",7/8" OD Copper tubing w/ 1/8" high copper fins spaced at 12 per inch. Various configurations Tube by tube: all copper or alternate materials. Units may be stacked and manifolded and/or insulated. Terms of delivery (mode of payment): 30 days upon credit approval POB Pompton Flains. Price (valid at the time of issuance of respective data sheet): from \$2.00 to \$5.00 per foot - finned tube. from \$35.00 up - tube by tube. Guarantees and maintenance service offered: Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Type of assistance offered: 3. Marketing X7 1. Technical 5. Training [] 2. Management /7 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. USA-08
Product(s) manufactured:	SOLAR RADIATION MEASURE
Precision solar radiation instruments.	MENT: INSTRUMENTS / SOLAR LABORATORY EQUIP- MENT
Name and address of manufacturer (including telephone THE EPPLEY LAFORATORY, Inc. Tel. 401 84 12 Sheffield Ave. Newport, RI 02840 (USA) Tlx. 944 32	-
	tt: EPLAB private governmental mixed
Contact person: George L. Kirk	
Description of product (main data and specifications)	:
Precision solar measuring equipment including pyranom infrared and ultraviolet radiometers and associated in	
Terms of delivery (mode of payment): cash with order; Sight Draft or letter of credit.	
Price (valid at the time of issuance of respective da	ta sheet):
ask for price list Guarantees and maintenance service offered:	
12 months.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
Type of assistance offered:	
<u> </u>	5. Training [] 6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	,

	
UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. USA-09
Product(s) manufactured:	SOLAR WATER HEATING
Solar heating systems	SYSTEMS
Largest producer of solar panels in the United	
States.	
Name and address of manufacturer (including telephone FAFCO, INC. Tel. (415) 255 Constitution Dr. Menlo Park, CA 94025 (USA) Tlx. 348-40	321 3650
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
125 employees	
\$10M - sales Contact person: Freeman A. Ford	
Description of product (main data and specifications)	:
Low cost, modular, lightweight, compact thermosipho	on hot water heating syst
Terms of delivery (mode of payment): Sight draft for initial orders.	
Price (valid at the time of issuance of respective da \$220. in quantities greater than 200.	ta sheet):
Guarantees and maintenance service offered:	
5 years.	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
plastic processing and chemical technology suitable manufacturing of solar systems	e for regional
Type of assistance offered:	
1. Technical 📈 3. Marketing 🏒	5. Training []
2. Management / 4. Design /	6. Other
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreference to patent rights, etc.)	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. US4-10
Product(s) manufactured:	PHOTOVOLTAIC CELLS AND MODULES
Photovoltaic modules and systems.	NAD WINDOWS
Name and address of manufacturer (including telephone MOBIL TYCO SOLAR ENERGY CORP. Tel (617) 8 No. 16 Hickory Dr. Waltham, MASS. 02254 (USA)	
Size and type of company: (number of employees; annual sales; share capital)	private governmental mixad
200 employees Joint venture between Mobil Corp. and Tyce Cabs,	
Contact person: Bob Hammond, Marketing Manager	
Description of product (main data and specifications):
Photovoltaic Modules manufactured from silicon ribbo	n solar cells.
:	
Terms of delivery (mode of payment):	
FOB Waltham, Mass. Price (valid at the time of issuance of respective d	ata sheet):
\$10 to \$18/Watt (peak) depending on quantity (1980	prices)
Guarantees and maintenance service offered:	
1 - 5 years.	
Description of technology offered: (for companies possessing know-how that might be mad developing countries)	e useful in the
Type of assistance offered:	5. Training X
1. Technical 7 3. Marketing 7 2. Management 7 4. Design 7	6. Other (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreference to patent rights, etc.)	,
Joint ventures.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT

Reference No. USA-11

Product(s) manufactured: Solar thermal and solar photovoltaic products and systems. Removable energy counseling. Specific products include: photovoltaic panels and power sytems photovoltaic water pumping systems, solar evaporative cooling systems, solar hot water systems, renewable energy publications, SOLAR COOLING SYSTEMS and solar consumer products. Expert counseling services to business, industry, and government for specialized, advanced or proprietary needs.

PHOTOVOLTAIC BASED SYSTEMS SULAR WATER PUMPS SOLAR HOT WATER SYSTEMS

Name and address of manufacturer (including telephone and telex no.):

Tel. 301/258-7540

in Professional Drive, Suite 130 Gaithersburg, Maryland 20879 (USA

Tlx. 710-828-9617

Size and type of company:

private governmental

(number of employees; annual sales; share capital)

mixed

-- 28 employees.

Contact person: George Wheelock, International Marketing Manager

Description of product (main data and specifications):

DC power systems (12 V or 24 V) AC power systems (115V 60 Hz)

Photovoltaic powered exhaust fan; domestic hot water systems

Terms of delivery (mode of payment):

Irrevocable letter of credit or sight draft.

Price (valid at the time of issuance of respective data sheet):

FOB Factory - write or Telex for current export price list or quote.

Guarantees and maintenance service offered:

Standard or as required.

Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries)

Engineering, development, and systems integration of renewable energy systems.

Type of assistance offered:

1. Technical X

3. Marketing /x/

5. Training &7

2. Management \sqrt{X}

4. Design

6. Other (specify)

Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

As required.

Unido data sheet ûn sûlar hardmare and equipment	Reference No. USA-12
Product(s) manufactured:	PHOTOVOLTAIC BASED SYSTEMS
Photovoltaic solar systems.	
Name and address of manufacturer (including telephon MOT ROLA INC., Tel Semiconductor Section, Solar Operations 5005 E. McDowell Rd Phoenix, Ariz. 85003(USA) Tip	602-355-6511
Size and type of company: (number of employees; annual sales; share capital) 71,500 Employees *3 billion - annual sales *2 million - share capital	private governmental mixed orola Corporate figures.
Contact person: Pat Walton, Product Marketer, Solar Product Market	•
Description of product (main data and specifications remote lighting systems; remote TV systems; refriger voltage regulator for p.v. power systems	
Terms of delivery (mode of payment): 30 days net, F.O.B. Phoenix	
Price (valid at the time of issuance of respective data sheet): p.v. modules (min 25) \$349-511 p.v. systems incl. structure \$1.102-10,097; voltage regulator \$232 Guarantees and maintenance service offered:	
l year guarantee.	
Description of technology offered: (for companies possessing know-how that might be mad developing countries)	e useful in the
See attached data.	
Type of assistance offered:	
1. Technical 📈 3. Marketing 📝 2. Management 🦪 4. Design 😥	5. Training [7] 6. Other [7] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how ag reference to patent rights, etc.)	

		
	Unido data sheet on solar hardware and equipment	Reference No. USA-13
	Product(s) manufactured:	ad SOLAR SPACE HEATING AND COOLING SYSTEM'S
	Wind monitoring devices	WIND ENERGY
	Solar and wind site assessment tocls Greenhouse air controller	
	Training material including various levels	
	of software.	
	Name and address of manufacturer (including telephone PARKWAY ENERGY PRODUCTS CORP.	e and telex no.):
	22 Parkway Rd., Suite No. 2 Brookline, Mass. 02146 (USA)	
	Size and type of company:	private
	(number of employees; annual sales; share capital)	government al
	less than 10 employees. 2000 shares of common stock.	mixed
	Contact person: Marilyn M. D'Aquanni, Marketing V	/.P.
	Description of product (main data and specifications):
	From simple graphic tools to microprocessor electroni	cs.
	Terms of delivery (mode of payment): FOB Logan Airport, Boston, Mass.	
	Price (valid at the time of issuance of respective day	ata sheet):
	\$10.00 to \$12.00 (US currency)	
	Guarantees and maintenance service offered:	
	3 month unlimited warranty on labor and parts.	
	Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful in the
	Consulting services in wind and solar site assessmentechnology transfer. Specification of wind and photoboth remote and utility application. Experience in A and abroad. Type of assistance offered:	voltaic systems with
	1. Technical (X) 3. Marketing \Box	5. Training [X]
ł	2. Management 7 4. Design X	6. Other (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.
	Team effort under contract alone or jointly.	

Unido data sheet on solar hardware and equipment	Reference No. USA-14
Product(s) manufactured:	PHOTOVOLTAIC CELLS
Cadmium Sulfide/Cuprous Sulfide (CdS/Cu _X S) solar cells	and modules
Name and address of manufacturer (including telephone	e and telex no.):
PHOTON POWER. INC. Tel. (915) 593-2869 10787 Gateway West Telex: 749-321 El Paso, Texas 79936 Size and type of company: (number of employees; annual sales; share capital)	private governmental
Cuned by Compagnie Françaice Des Petroles of Paris,Fra and Libbey-Owens-Ford Company of Toledo, Ohio 95 employyes	mixed ance
Contact person: Daniel M. Spitzer, President or Martin F. Wenzler, Mar	nager, Sales and Marketin
Description of product (main data and specifications) Thin film Cds/Cu _x S cells; Electro-optical glass (SnOx)) :
Terms of delivery (mode of payment): Net 30 days	
Price (valid at the time of issuance of respective da	ata sheet):
\$5-12/Wp; FOB: El Paso, Texas, USA	
Guarantees and mainter nce service offered:	
One year and maintenance agreement	— ————————————————————————————————————
Description of technology offered: (for companies possessing know-how that might be made developing courtries)	useful in the
Mana of againtance offered	
Type of assistance offered: 1. Technical	5. Training [7
<u> </u>	6. Other [] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreference to patent rights, etc.)	
Transfer of technology not available in near term.	

Unido data sheet on solar hardware and equipment	Reference No. USA-15
Product(s) manufactured: Photovoltaic modules, cells Ventilation products - Solar fans and solar turbines.	PHOTOVOLTAIC CELLS AND MODULES PHOTOVOLTAIC BASED SYSTEMS
Name and address of manufacturer (including telephone PHOTOWATT INTERNATIONAL, INC. Tel. 602 8 2414 W. 14th Street Tempe, AZ 85281 (USA) Tlx. 910-9 Size and type of company: (number of employees; annual sales; share capital) - 50 employees N/A N/A	94 9564 50-0142 <u>private</u>
Contact person: Greg T. Love, Marketing Director	
Photovoltaic cells and modules and solar ventilation (refer to attached data sheets) Terms of delivery (mode of payment): Established accounts:net 30 days; new accounts: preprice (valid at the time of issuance of respective data celis and modules: \$12-20/W; solar fan \$340; ventil solar turbines \$380 Guarantees and maintenance service offered: 2 year limited warranty.	eaid or COD.
Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
1	5. Training [] 6. Other [] (specify)

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. USA-16
Product(s) manufactured: Silicon photovoltaics - cells and panels Light sensitive devices for special application Light emitting dioles and assemblies Silicon readout cells; optical switches Cds-CdSe Photocells; Trimmer potentiometers	PHOTOVOLTAIC CELLS AND MODULES
Name an: address of manufacturer (including telephone SILICON SENSORS, INC. Tel.: (608) 9:5-270 Hwy. 18 East Telex: TWX 910-280-Dodgeville, Wisc. 53533 USA Size and type of company: (number of employect; annual sales; share capital) 25 employees Sales: \$ 1 million Contact person: Robert L. Bachner, President	·
Description of product (main data and specifications) Silican photocells and light sensitive devices):
Terms of delivery (mode of payment): Net 30 days if of Outside of USA: Letter of credit payable by draft at and confirmed by an American Bank. Price (valid at the time of issuance of respective days)	sight, irrevocable
Guarantees and maintenance service offered: yes	
Description of technology offered: (for companies possessing know-how that might be made developing countries)	e useful i the
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr	5. Training 6. Other (specify) reements; etc.
reference to patent rights, etc.)	

Date of issue: March 1982

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UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Product(s) manufactured: Solar-powered (photovoltsic) micro-irrigation systems for use on small farms, primarily in developing countries.	Reference No. USA-17 PHOFOVOLTAIC BASED SYSTEMS SCLAR WATER PUMPS
Name and address of manufacturer (including telephone SOLAR ELECTRIC INTERNATIONAL Tel (301) 6 4837 Del Ray Ave. Bethesda, Mayland Tlx. 248491 20814 (USA) Size and type of company: (number of employees; annual sales; share capital) Subsidiary of Applied Solar Energy Corp. (see USA-02) Contact person: Dr. S.V. Allison, Managing Director	private governmental mixed
Description of product (main data and specifications) The SEI-250 Sun Pump is a portable, solar-powere irrigation system. The Sun Pump will irrigate 1-4 ha lift and cropping pattern. It is designed to be used for stream. The system is simple to operate and virtual Terms of delivery (mode of payment): Export shipments against L/C/ Price (valid at the time of issuance of respective data List price US\$6,750, for single units. Quantity of Guarantees and maintenance service offered:	ed, low-lift micro- of land, depending upon from an open well, canal lly maintenance free.
Description of technology offered: (for companies possessing know-how that might be made developing countries) Solar Electric International is developing a recan design and engineer special systems to meet per type of assistance offered: 1. Technical	ange of solar pumps and articular requirements. 5. Training

	UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. USA-1ô
	Product(s) manufactured:	PHOTOVOLTAIC CELLS AND MODULES
	Photovoltaic Products and Systems.	
	Name and address of manufacturer (including telephone SOLAR POWER CURPORATION Affiliate of Exxon Corp. 20 Cabot Rd Woburn, Mass.01801 (USA)	and telex no.):
	Size and type of company: (number of employees; annual sales; share capital)	private governmental mixed
	Contact person: Michael T. Pecora, Marketing serv	ice s
	Description of product (main data and specifications)	:
	Solar cells, modules, and systems.	
	Terms of delivery (mode of payment): Irrevocable letter of credit on foreign/Net 30 days on domestic.	
	Price (valid at the time of issuance of respective da	ata sheet):
	Guarantees and maintenance service offered: 2 year Warranty.	
	Description of technology offered: (for companies possessing know-how that might be made developing countries)	useful in the
i :		
	Type of assistance offered:	
	1. Technical 💢 3. Marketing 💆	5. Training []
	2. Management 7 4. Design 5	6. Other (specify)
	Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreeference to patent rights, etc.)	reements; etc.
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UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. USA-19 Product(s) manufactured: PHOTOVOLTAIC BASED SYSTEMS - Solar powered refrigerator/freezer systems for vaccine storage in remote areas. Also, lighting systems. Name and address of manufacturer (including telephone and telex no.): SOLAREX CORPORATION Tel.(301) 948-0202 1335 Piccard Drive Rock ille, Maryland 20850 (USA) Tlx. 248359 SOLX Size and type of company: private (number of employees; annual sales; share capital) governmental mi ved -- 400 employees. SALES (confidential) Contact person: Brian H. Kennedy, Manager Market Development Description of product (main data and specifications): The Solarex Model RHC-100 refrigerator/freezer system includes all the components to provide reliable refrigeration without fuel supplies. Photovoltaic panels generate electricity which is stored in special batteries. The batteries run a medical refrigerator. Terms of delivery (mode of payment): Prepaid or Irrevocable LC Price (valid at the time of issuance of respective data sheet): \$5800 List. Guarantees and maintenance service offered: 2 year material workmanship guarantee. Description of technology offered: for companies possessing know-how that might be made useful in the developing countries) Type of assistance offered: 1. Technical [7] 3. Marketing [x] 5. Training $\sqrt{\chi}$ 2. Management /7 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.)

Unido data sheet on solar hardware and equipment	Reference No. USA-20
Product(s) manufactured: Software for pre-programmable hand-held calculators for solar energy calculations (see literature, enclosed) Book: "Solar Energy Calculations" by Dr. Roderich Graeff	ad SOLAR SPACE HEATING SYSTEMS
Name and address of manufacturer (including telephone SOLARCON, INC. Tel. (313) 607 Church Ann Arbor, Michigan 48104 (USA) Size and type of company: (number of employees; annual sales; share capital) 2 employees. Contact person: Norlene H. Martin	-
Description of product (main data and specifications) SOLARCON's programs are sold in the form of pre-rec which can be used with the programmable calculators, delivered with detailed documentation. Together with they allow the estimation of annual performance of ac heating systems. The, are primarily aimed for enginee Terms of delivery (mode of payment): tific institut field of solar Net 30 days - Payment in US funds. Price (valid at the time of issuance of respective da Individual programs: \$75 - 225 Program libraries: \$225 - 1225 Guarantees and maintenance service offered: Yes.	corded magnetic cards TI 5- or HP 41C and are a weather data cards, ctive and passive solar ers, architects, scien- cicns and companies in the r energy.
	e useful in the
2. Wanagement	6. Other (specify)

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Unido data sheet of solar hardware and equipment	Reference No. USA-21
Product(s) manufactured: Solar cells solar panels voltage regulators total systems	PHOTOVOLTAIC CELLS AND NODULES
Name and address of manufacturer (including telephone SOLEC INTERNATIONAL, INC. Tel. (213) 12533 Chadron Ave. TWX 910-325 Hawthorne, CA 90250 (USA) Size and type of company: (number of employees; annual sales; share capital) 50 employees \$2 million - annual sales Contact person: Mr. Robert F. Brown, Marketing Man	97065 -6215 SOLEC HWTH private governmental mixed
Description of product (main data and specifications) Solar cells, 3" and 4" diameter Solar panels various outputs and sizes Terms of delivery (mode of payment): Irrevocable confirmed L/C at sight Price (valid at the time of issuance of respective day will be furnished in detail upon request Guarantees and maintenance service offered: 3 year warranty.	
	ventures and 5. Training [] 6. Other [] (specify)
To be determined case by case.	

UNIDO DATA SESSET ON SOLAR HARDWARE AND EQUIPMENT Reference No. USA-22 Product(s) manufactured: PHOTOVOLTAIC CELLS AND MODULES -- Solar cells, solar modules, solar electric (PV) generators. Name and address of manufacturer (including telephone and telex no.): SCLENERGY INTERNATIONAL CORP. Tel (617) 938 0563 171 Merrimac St. Woburn, Mass. 01801 (USA) Tlx. 95-1677 SOLENERGY WOBN Size and type of company: private (number of employees; annual sales; share capital) governmental mixed -- approx. 50 employees. Contact person: C. William Clark, Vice President of Marketing Description of product (main data and specifications): Single crystal silicon solar PV cells in sizes from .5x.25cm to 100mm. Solar (PV) modules in sizes from 2.5 peak watts to 35 peak watts. Construction of glass/silicone rubber/glass or glass/silicone rubber/aluminum. Terms of delivery (mode of payment): Delivery time: Normally 4 to 8 weeks after receipt of order and letter of credit Price (valid at the time of issuance of respective data sheet): Prices range from less than \$10. per peak watt for orders of large modules in volume, to \$20. per peak watt for small modules. Cell prices vary with purchase of volume and amount of cutting required. Guarantees and maintenance service offered: Generator systems supplied do not require frequent maintenance. Installation supervision gouted on project by project basis Standard guarantee: 1 year. Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Encapsulation technology for manufacture of modules using glass/silicone rubber/aluminum material. Type of assistance offered: 1. Technical X 3. Marketing 5. Training \sqrt{x} ó. Other 2. Management /7 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Know-how agreement involving contract payment for puchase of equipment, training, start-up of local manufacturing plant. Additional training in arraying, inter-

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module wiring and system sizing is also available.

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UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. USA-23 Product(s) manufactured: PHOTOVOLTAIC CELLS AND MODULES -- Photovoltaics: Solar cells, solar modules solar arrays. Name and address of manufacturer (including telephone and telex no.): SOLLOS INCORPORATED 2231 S. Carmelina Ave. Los Angeles, Calif. 90064 (USA) Size and type of company: private (number of employees; annual sales; share capital) governmental mixed -- 6 employees. -- \$100,000 Contact person: Dr. Milo Macha Description of product (main data and specifications): Silicon solar cells; Solar arrays (6 and 12 V series); custom-designed encapsulation; Terms of delivery (mode of payment): 4 to 6 weeks ARO - Letter of Credit or prepaid Price (valid at the time of issuance of respective data sheet): Negotiable for larger projects; 10-49 units: 5% discount; 50-99 units: 10% discount Guarantees and maintenance service offered: Two years guarantee. Description of technology offered: (for companies possessing know-how that might be made iseful in the developing countries) Type of assistanc. offered: 1. Technical x 3. Marketing // 5. Training 17 2. Management \sqrt{x} 4. Design 6. Other (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Joint ventures and/or know-how agreements based on proprietary processes.

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT	Reference No. USA-24
Product(s) manufactured: Solar collectors: flat plate, liquid Solar collectors: evacuated tube Hot water systems Pool heating systems Solar auxilaries.	COLLECTORS (FLAT PLATE AND EVACUATED TUBE) SOLAR WATER HEATING SYSTEMS
Name and address of manufacturer (including telephone	and telex no.):
SUNWORKS P.O. Box 3900 Sommerville, New Jersey 08876 (USA) Size and type of company: (number of employees; annual sales; share capital) Subsidiary of ASARCO American Smelting and Refining Co.) Contact person: V.William Copcutt, Foreign Sales Management	7 Sunworks SVI private governmental mixed
Description of product (main data and specifications)	:
Selective surface Solector collectors. Prepackaged and drainback systems for hot water.	open loop, closed loop,
Terms of delivery (mode of payment): FOB Factory: Freight allowed to USA Port. Sight draft against letter of credit. Price (valid at the time of issuance of respective day Upon receipt of inquiry defining interest.	ata sheet):
Guarantees and maintenance service offered:	
5 year limited warranty. No maintenance service. Description of technology offered: (for companies possessing know-how that might be made	useful in the
developing countries) a. Application performance, instructions of install b. rights of local manufacture.	
Type of assistance offered:	
1. Technical X 3. Marketing X 2. Management 7 4. Design 7	5. Training X 6. Other \[\bigcup \] (specify)
Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agr reference to patent rights, etc.)	
a. With agreement to purchase form Sunworks. b. License agreement and royalties.	

UNIDO DATA SHEET ON SOLAR HARDWARE AND EQUIPMENT Reference No. USA-25 Product(s) manufactured: COLLECTORS (FLAT PLATE) -- Solar collectors; liquid and air. HEAT EXCHANGERS -- Water to water heat exchangers. HEAT STORAGE MEDIA -- Hydraulic fireplace grates. -- Solar storage tanks. Name and address of manufacturer (including telephone and telex no.): UNITED STATES SOLAR IND., INC. **1. 404-252-1870 5600 Roswell Rd. N.E., Suite 380 Atlanta, Georgia 30342 (USA) Size and type of company: private (number of employees; annual sales; share capital) governmer al mixed - 27 employees - \$1.8 million--annual sales Contact person: David K. Straight Description of product (main data and specifications): Copper absorber plate collectors (double insulated) Terms of delivery (mode of payment): Letter of credit, F.O.B. Cash. Price (valid at the time of issuance of respective data sheet): Collectors: based on sq ft. per order: \$197.87-\$474.00 Solar tanks: \$458.00 - \$585.00; heat exchangers: \$108 - \$134.00 Guarantees and maintenance service offered: Description of technology offered: (for companies possessing know-how that might be made useful in the developing countries) Manufacturing, engineering including design, dealer training. Type of assistance offered: 1. Technical Z 3. Marketing [x] 5. Training [x] 2. Management X 6. Other 4. Design (specify) Terms and conditions for transfer of technology: (basis for co-operation: joint ventures; know-how agreements; etc. reference to patent rights, etc.) Joint venture.

Date of issue: March 1982

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