Govt. of India
Ministry of Commerce & Industry
Department of Commerce
Directorate General of Supplies & Disposals
Jeevan Tara Building
5, Sansad Marg New Delhi-110001

Schedule To Tender Enquiry
DGS&D Form-242

Tender Enquiry No **Solarlight/IT-2/RC-D3020000/0412/82**

Time & Date of Receipt of Tender By 02:30 PM On 15-04-2011

Time & Date of Opening of Tender At 03:00 PM On 15-04-2011

Offer to remain valid for acceptance upto 14-07-2011

RC Period From : 01-05-2011 To 30-04-2012 (OR 12 months From the date of conclusion of RC)

Estimated Drawal (In Lakhs)Rs. 6,900.00

Cost of Tender Rs. 1000

The details of stores are as under : -

Srno.	Description of Store			Rate/Unit
UNIT: NOS.	**Solar Lantern (MNRE Specification)**			
	Model Number	**CFL Lamp Rating**	**Battery Capacity**	
1	IIA	7W	12 V, 7.00 AH	
2	IIB	7W	12 V, 7.00 AH	
UNIT: NOS.	**Solar Home Light System With Structure (MNRE Specification)**			
	Model Number	**No. of CFL Lamps of 9 or 11W Rating**	**DC Fan Rating**	**Battery Voltage and Capacity**
3	1	1	No Fan	12 V, 20 AH
4	2	2	No Fan	12 V, 40 AH
5	4	2	Less than 20 W	12 V, 75 AH
6	5	4	No Fan	12 V, 75 AH
UNIT: NOS.	**Solar Street Light System With Mounting Structure & Pole (MNRE Specification)**			
	Description of Item		**PV Module**	**Battery Capacity**
7	1 X 11 W CFL		74 W	12 V , 75 AH
8	2 X 11 W CFL (Single Luminaire with 2 CFL)		120 W	12 V, 100 AH
9	2 X 11 W CFL (Double Luminaire with 1 CFL each)		120 W	12 V, 100 AH
UNIT: NOS.	**Spare PV Module for Solar Lighting System as per MNRE Specification**			
	Suitable for	**PV Module rating**	**Cable Length in mtrs**	
10	Home Lighting & Street Lightting	37 Wp	3	

	Description of Store		Rate/Unit
11	Home Lighting & Street Lighting	74 Wp	3
12	Home Lighting & Street Lighting	18 Wp	3
13	Solar Lantern	10.0-11.9 Wp	5
14	Solar Lantern	12.0-14.0 Wp	5

Note : Detailed specifications as per Annexure'A' attached

Cut Off Date For Performance : 15-03-2011

For & on behalf of the purchaser
named in the schedule

Schedule 1 Solar Lantern (MNRE Specification)

Specification :.

Schedule 2 Solar Home Light System With Structure (MNRE Specification)

Specification :.

Schedule 3 Solar Street Light System With Mounting Structure & Pole (MNRE Specification)

Specification :.

Schedule 4 Spare PV Module for Solar Lighting System as per MNRE Specification

Specification :.

Tenderers to note:

1. All the item shall be as per MNRE specifications of 2009-2010 except Solar Lantern under Schedule 1 which shall be as per MNRE specifications of 2005-2006 and tenderer shall possess satisfactory test certificate issued by Solar Energy Centre or any other approved testing centre of MNRE and same shall also be furnished to the concerned D(QA) at the time of inspection.

However,Item No. 2 & 3, under schedule 3, shall generally conforming to MNRE specifications of 2009-2010 for all features,except for following:

(i) The battery will have a minimum rating of 12V, 100 Ah at C/10 discharge rate.
(ii) The power output of the module(s) under STC should be a minimum of 120 W.

2. Tenderers shall furnish complete details (such as address , telephone, fax, e- mailaddress etc.) of after-sale service centres.

3. The supplier shall also provide free training to the local custodians of installations for smooth and trouble-free operation of unit.

4. PV modules manufacturer should be MNRE approved.

5. They shall have testing facility to check the power output of PV module, calibrated modules with set up for measuring sun intensity, voltmeter, ammeter, DC power supplies, multimeter, loading facility for charge controller, H.V. & I.R. tester etc.

6. All the updated changes in the specifications/standards includindg adoption of the IEC standards as applicable shall be effective as per MNRE guidelines.

General Technical requirement For TE :

Note:-
All the updated changes in the specifications/standards includindg adoption of the IEC standards as applicable shall be effective as per MNRE guidelines.

1. Spare PV Module shall be supplied with appropriate cable, connectors and soldering terminals.

2. Solar Lantern shall comprise of lead acid battery , PV module, battery box, compact fluorescent lamp and shall be complete with luminaire, control electronics, interconnecting cables/ wires and operating instruction / maintenance manual.

3. Solar Home Lighting System shall comprise of lead acid battery , PV module, module mounting hardware , battery box, compact fluorescent lamp and fan (where specified) and complete with luminaire, control electronics, interconnecting cables/ wires and operating instruction / maintenance manual.

4. Solar Street Lighting System shall comprise of lead acid battery , PV module, pole, module mounting hardware , battery box, compact fluorescent lamp and complete with luminaire, control electronics, interconnecting cables/ wires and operating instruction / maintenance manual.

5. All the item shall be as per MNRE specifications of 2009-2010 except Solar Lantern under Schedule 1 which shall be as per MNRE specifications of 2005-2006 and tenderer shall possess satisfactory test certificate issued by Solar Energy Centre or any other approved testing centre of MNRE and same shall also be furnished to the concerned D(QA) at the time of inspection.
However,item No. 2 & 3, under schedule 3, shall generally conforming to MNRE specifications of 2009-2010 for all features,except for following:
(i) The battery will have a minimum rating of 12V, 100 AH at C/10 discharge rate.
(ii)The power output of the module(s) under STC should be a minimum of 120 W.

6. Thickness of Battery Box for Home Light System and Street Lighting System shall be minimum 0.70 mm made up of MS Sheet or minimum 2.25 mm made of injection moulded Polymer.

7. For Street Lighting System, module mounting hardware shall be adjustable for sun orientation . The pole shall be either in one piece with uniform diameter of 76 mm OD or swaged type with 76 mm OD in lower portion and 60 mm OD in upper portion or 76 mm OD throughout,made up of MS duly primered (2 coats) and painted in silver ash hammertone colour (or as chosen by DDO).The pole shall have suitable arrangement for grouting and length of the pole above ground shall not be less than 4.0 meters.

8. PV Modules manufacturer should be MNRE approved.

9. They shall have a testing facility to check the power output of PV module, calibrated modules with set up for measuring sun intensity, voltmeter, ammeter, D.C power supplies, multimeter, loading facility for charge controller, H.V & I.R tester etc.

10. The Battery shall be of standard makes of Panasonic, Exide Base, Yuasa, Prestolite, HBL nife, Amarraja, Hitachi, CSB, Kamatsu, Okaya or DGS&D registered battery. Supplier are at liberty to also use their label/logo /monograph for easy identification, in addition to the make of manufacturer.

11. CFL Lamps shall be of standard makes of Osram, Philips, Bajaj, Phonix, Havells, Anchor, Surya or DGS&D registered make.

1. Definition:

A Solar Photovoltaic Lantern is a lighting system consisting of a lamp, battery and electronics all placed in a suitable housing, made of metal, plastic or fiber glass and a PV module. The battery is charged by electricity generated through the PV module. The lantern is basically a portable lighting device suitable for indoor or outdoor lighting covering a full range of 360 degrees. A lighting device which provides only unidirectional lighting will not be classified as a solar lantern in the present context.

2. Duty Cycle:

The solar lantern should provide a minimum of three hours of lighting per day under average daily solar radiation conditions of 5 kWh/sq.m. on a horizontal surface. The actual duration of lighting may vary depending on the location, season, etc.

3. Models:

The solar lantern should conform to one of the following 12V models .

(a) Model IIA

Lamp ---------- CFL 7W ,
Battery Capacity At C/20 Rate---- 12V,7.00AH,
PV Module Rating---------- 10.0 TO 11.9 Wp

(b) Model IIB

Lamp ---------- CFL 7W ,
Battery Capacity At C/20 Rate --- 12V,7.00AH,
PV Module Rating ---------- 12.0 TO 14.0 Wp

4. Lamp:

(a) The lamp will be of compact fluorescent (CFL) type with a rating of 7W.
(b) For 4-Pin type CFLs, a suitable pre-heating circuit must be provided.
(c) The lamp should preferably be mounted in a base up configuration.
(d) The light output should be 370 +/- 5% lumen for a 7W lamp (see also (c) of 6.

5. Battery:

(a) The battery will be sealed maintenance free lead acid type.
(b) The capacity of the battery will be a minimum of 7.0 AH at 12 V at C/20 discharge rate at 20C.
(c) Eighty percent of the rated battery capacity should be between the low voltage and high voltage cut/off points.

6. Electronics:

(a) The inverter will be of quasi sine wave/sine wave type with a crest factor less than 1.7 and the frequency in the range of 20-35 KHz. Half-wave operation is not acceptable.
(b) The overall efficiency of the control electronics should be at least 80%.
(c) No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON and four minutes OFF is one cycle).
(d) The idle current (i.e. the current consumed when the lamp is switched OFF and no charging is in progress) should not be more than 1 mA.
(e) The PCB containing the electronics should be capable of solder free installation and placement.
(f) Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery through out the year.

7. PV Module:

(a) The wattage range of the PV modules will be 10.0-11.9 Wp for Model IIA & 12.0-14.0 Wp for Model IIB & it should be at 16.40 Volts for both the Models (under standard test conditions (STC). The open circuit voltage of the PV modules under STC should be at least 21.0 Volts for all 12 V Models.
(b) The module should preferably have an arrangement (stand) for mounting at

the optimum angle in the direction facing the sun.

(c) In case of thin film solar cell modules, the specified values refer to the power output after the initial degradation.

(d) The terminal box on the module should have a provision for opening for replacing the cable if required.

(e) A strip containing the following details should be laminated inside the module so as to be clearly visible from the front side:
   (i) Name of the Manufacturer or distinctive Logo.
   (ii) Model or Type No.
   (iii) Serial No.
   (iv) Year of make

8. Electronic Protections:

(a) Adequate protection is to be incorporated under no load conditions (e.g. when the lamp is removed and the lantern is switched ON).

(b) Battery cut offs & reconnections should be provided to protect it against overcharge and deep discharge conditions.

(c) A fuse should be provided to protect against short circuit conditions.

(d) A blocking diode, preferably a Schottky diode should be provided as part of the lantern electronics to prevent reverse flow of current through the PV module in case such a diode is not provided with module itself.

(e) Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

9. Other features:

(a) The lantern should be provided with 2 LED indicators, a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery. The green LED should glow when the battery is actually being charged.

(b) A good reliable switch suitable for DC use is to be provided on the lantern. A cable at least 5 meters long should be provided for inter-connection between the module and the lantern.

(c) The following details should be marked indelibly on the lantern:
   (i) Name of the Manufacturer or Distinctive Logo.
   (ii) Model Number (this refers to Models indicated below.)
   (iii) Serial Number.

(d) An Operation, instruction and Maintenance Manual in English and the local language should be provided with the solar lantern.
   The following minimum details must be provided in the Manual.
   (i) About Photovoltaics
   (ii) About solar lantern.
   (iii) About PV module.
   (iv) About CFL
   (v) About battery.
   (vi) Clear instructions about mounting of PV module.
   (vii) About electronics.
   (viii) About charging and significance of indicators.
   (ix) DO's and DONT's.
   (x) Clear instructions on regular maintenance and trouble shooting of the lantern.
   (xi) Name and address of the person or service Centre to be contacted in case of failure or complaint.

(e) Components and parts used in the solar lantern should conform to the latest BIS specifications, wherever such specifications are available and applicable.

(f) The PV module will be warranted for a minimum period of 10 years from the date of supply and the lantern (including the battery) will be warranted for a minimum period of two years from the date of supply. The Warranty Card to be supplied with the system must contain the details of the system supplied, as given in ANNEXURE "12". The manufacturers can also provide additional information about the system and conditions of warranty as necessary.

(g) Additional features such as a small white LED which function as a night lamp or a socket for powering another appliance such as a fan or radio may be provided in the lantern. These are however purely optional. If such features are provided, they should not interfere with the

independent switching on and off of the lantern.

SPECIFICATIONS FOR SOLAR PHOTOVOLTAIC SYSTEMS
(MNRE 2009-2010 SPV PROGRAMME)
SOLAR HOME LIGHTING SYSTEMS

I. DEFINITION

A solar home lighting system aims at providing solar electricity for operating lights and /or fan or energizing a DC operated portable TV set for specified hours of operation per day.

II. MODELS

MODEL-1 (1 Light Point)

Component Specifications

PV Module	: 1X 18 Wp under STC
Lamps	: 1X CFL (9W /11W)
Battery	: 1X 12V, 20 AH Tubular Plate, low maintenance type Lead Acid Battery
Other Components	: Control electronics, Module mounting hardware, Battery box, Interconnecting wires/ cables, Switches Operation, instruction and maintenance manual.

MODEL - 2 (2 Lights)

Component Specifications

PV Module	: 1X 37 Wp under STC
Lamps	: 2X CFLs (9W /11W)
Battery	: 1X 12V, 40 AH Tubular Plate, low maintenance type Lead Acid Battery
Other Components	: Control electronics, Module mounting hardware, Battery box, Interconnecting wires/cables, Switches. Operation,instruction and maintenance manual.

MODEL - 3 (2 lights and 1 fan)

Component Specifications

PV Module(s)	: 2X 37 Wp or 1 X 74 Wp under STC
Lamps	: 2X CFLs (9W /11W)
Fan	: 1X DC Fan (with wattage less than 20 W)
Battery	: 1X 12V, 75 AH Tubular Plate low maintenance type Lead Acid Battery
Other Components	: Control electronics, Module(s) mounting hardware, Battery box,Inter-connecting wires/cables, Switches, Operation, instruction and maintenance manual.

MODEL - 4 (4 lights)

Component Specifications

PV Module(s)	: 2X 37 Wp or 1 X 74 Wp under STC
Lamps	: 4 X CFLs (9W /11W)
Battery	: 1X 12V, 75 AH Tubular Plate low maintenance type Lead Acid Battery
Other Components	: Control electronics, Module(s) mounting hardware, Battery box,Inter-connecting wires/cables, Switches, Operation, instruction and maintenance manual.

Notes :

i) All models will have a socket to provide power for a 12V DC TV set which is purchased separately.

ii) A small white LED may be provided as an optional feature, with an independent switch.

III. DUTY CYCLE

MODELS AVERAGE HOURS OF OPERATION / DAY

Model 1 : 1 Light, 3-4 Hours
Model 2 : 2 Lights, 3-4 Hours
Model 3 : 2 Lights, 2-3 hours, 1 Fan-2-3 hours.
Model 4 : 4 Lights, 3-4 Hours

IV. LAMPS

(i) The lamps will be of compact fluorescent (CFL) type, either 4 - Pin or 2 Pin types, with ratings of 9W or 11W. For the 4 - Pin type CFLs, a suitable pre-heating circuit must be provided.
(ii) The light output from the lamps should be around 600 +/- 5 % lumens (for 9 W CFL)and 900 +/- 5 % lumens (for 11 W CFL). Also please see (iii) of VI given below.
(iii) The lamps should be housed in an assembly suitable for indoor use, with a reflector on its back. While fixing the assembly, the lamp should be held in a base up configuration.

V. BATTERY

(i) The battery will be of flooded electrolyte type, positive tubular plate, low maintenance lead acid battery.
(ii) The battery will have a minimum rating of 12V, 20 or 40 or 75 Ah (at C/10) discharge rate depending on Model.
(iii) 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions.

VI. ELECTRONICS

(i) The inverter should be of quasi sine wave/sine wave type, with frequency in the range of 20 - 35 KHz. Half-wave operation is not acceptable.
(ii) The total electronic efficiency should be at least 80 %.
(iii) No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON followed by four minutes OFF is one cycle).
(iv) The idle current consumption should not be more than 10 mA
(v) Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery through out the year.
(vi) Necessary lengths of wires / cables, switches suitable for DC use and fuses should be provided.

VII. PV MODULE (S)

(a) The PV module (s) shall contain crystalline silicon solar cells
(b) The power output of the module(s) under STC should be a minimum of 18 W or 37 W or 74 W. In case of Model 4 & 5 either two modules of 37 W each or one module of 74 W should be used.
(c) The operating voltage corresponding to the power output mentioned above should be 16.4 V.
(d) The open circuit voltage of the PV modules under STC should be at least 21.0 Volts.
(e) The terminal box on the module should have a provision for opening for replacing the cable, if required.
(f) A strip containing the following details should be laminated inside the module so as to be clearly visible from the front side:
g) Name of the Manufacturer or distinctive Logo
h) Model or Type No.
i) Serial No.
j) year of make

VIII. DC FAN

The wattage of the fan should not be more than 20 Watts and it should operate at 12V DC.

IX. ELECTRONIC PROTECTIONS

(i) Adequate protection is to be incorporated under no load conditions, e.g. when the lamps are removed and the system is switched ON.

(ii) The system should have protection against battery overcharge and deep discharge conditions.

(iii) Fuses should be provided to protect against short circuit conditions.

(iv) A blocking diode, should be provided as part of the electronics, to prevent reverse flow of current through the PV module(s), in case such a diode is not provided with the PV module(s).

(v) Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

X. MECHANICAL COMPONENTS

(i) Metallic frame structure (with corrosion resistance paint) to be fixed on the roof of the house to hold the SPV module(s). The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that it can be installed at the specified tilt angle.

(ii) A vented metallic / plastic / wooden box with acid proof corrosion resistance paint for housing the storage battery indoors should be provided.

XI OTHER FEATURES

(ii) The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery. The green LED should glow only when the battery is actually being charged.

(iii) There will be a Name Plate on the system which will give:

(a) Name of the Manufacturer or Distinctive Logo.

(b) Serial Number.

(iii) Components and parts used in solar home systems should conform to the latest BIS specifications, wherever such specifications are available and applicable.

(iv) PV module(s) will be warranted for a minimum period of 10 years from the date of supply and the solar home system (including the battery) will be warranted for a period of five years from the date of supply. The Warranty Card to be supplied with the system must contain the details of the system supplied, as given in the Annexure-12. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.

(v) An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the solar home system.

The following minimum details must be provided in the Manual:

(a) About Photovoltaics

(b) About solar home system - its components and expected performance

(c) About PV module.

(d) About CFL.

(e) About battery.

(f) Clear instructions about mounting of PV module(s).

(g) About electronics.

(h) About charging and significance of indicators.

(i) DO's and DONT's,

(j) Clear instructions on regular maintenance and trouble shooting of solar home system.

(h) Name and address of the person or service center to be contacted in case of failure or complaint.

SOLAR STREET LIGHTING SYSTEM

I. DEFINITION

A stand alone solar photovoltaic street lighting system comprises a compact fluorescent lamp, lead acid battery, PV module(s), control electronics, inter-connecting wires/cables, module mounting hardware, battery box,

Operation,instruction and maintenance manual.

II. DUTY CYCLE

The system should be designed to automatically switch ON at dusk, operate throughout the night and automatically switch OFF at the dawn, under average daily insolation of 5 kWh/sq.m. on a horizontal surface.

III. LAMP

(i) The lamp will be of compact fluorescent (CFL) type, either 4 - Pin or 2 Pin type,with a rating of 11W. For the 4 - Pin type CFL, adequate pre-heating circuit must be provided.

(ii) The light output from the lamp should be around 900 +/- 5 % lumens. Also please see (iii) of V given below.

(iii) The lamp should be housed in a weather proof assembly suitable for outdoor use, with a reflector on its back. While fixing the assembly, the lamp should be held in a base up configuration.

IV. BATTERY

(i) Flooded electrolyte type, positive tubular plate, low maintenance lead acid battery.

(ii) The battery will have a minimum rating of 12V, 75 Ah (at C/10) discharge rate.

(iii) 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions.

V. ELECTRONICS

(i) The inverter should be of quasi sine wave/ sine wave type, with frequency in the range of 20 - 35 KHz. Half-wave operation is not acceptable.

(ii) The total electronic efficiency should be at least 80 %.

(iii) No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON followed by four minutes OFF is one cycle).

(iv) The idle current consumption should not be more than 10 mA.

(v) Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery through out the year.

(vi) Necessary lengths of wires/cables and fuses should be provided.

(vii) The PV module will be used to sense the ambient light level for switching ON and OFF the lamp.

VI. PV MODULE (S)

(i) The PV module(s) shall contain crystalline silicon solar cells.

(ii) The power output of the module(s) under STC should be a minimum of 74 W. Either two modules of minimum 37 W output each or one module of 74 W output should be used.

(iii) The operating voltage corresponding to the power output mentioned above should be 16.4 V.

(iv) The open circuit voltage of the PV modules under STC should be at least 21.0 Volts.

(v) The terminal box on the module should have a provision for opening for replacing the cable , if required.

(vi) A strip containing the following details should be laminated inside the module so as to be clearly visible from the front side:-

a) Name of the Manufacturer or distinctive Logo
b) Model or Type No.
c) Serial No.

d) year of make

VII. ELECTRONIC PROTECTIONS

(i) Adequate protection is to be incorporated under no load conditions e.g. when the lamp is removed and the system is switched ON.
(ii) The system should have protection against battery overcharge and deep discharge conditions.
(iii) Fuses should be provided to protect against short circuit conditions.
(iv) A blocking diode, should be provided as part of the electronics, to prevent reverse flow of current through the PV module(s), in case such a diode is not provided with the solar module(s).
(v) Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

VII. MECHANICAL HARDWARE
(i) A metallic frame structure (with corrosion resistance paint) to be fixed on the pole to hold the SPV module(s). The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that the module(s)can be oriented atthe specified tilt angle.
(ii) The pole should be made of mild steel pipe with a height of 4 metres above the ground level, after grouting and final installation. The pole should have the provision to hold the weather proof lamp housing. It should be painted with a corrosion resistant paint.
(iii) A vented, acid proof and corrosion resistant painted metallic box for outdoor use should be provided for housing the battery.

IX. OTHER FEATURES
(i) The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery. The green LED should glow only when the battery is actually being charged.
(ii) There will be a Name Plate on the system, which will give:
(a) Name of the Manufacturer or Distinctive Logo.
(b) Serial Number.
(iii) Components and parts used in the solar street lighting systems should conform to the latest BIS specifications, wherever such specifications are available and applicable.
(iv) The PV module(s) will be warranted for a minimum period of 10 years from the date of supply and the street lighting system (including the battery) will be warranted for a period of two years from the date of supply.

The Warranty Card to be supplied with the system must contain the details of the system.The manufacturers can also provide additional information about the system and conditions of warranty as necessary.
(v) An Operation, Instruction and Maintenance Manual, in English and the local language,should be provided with the solar street lighting system.

The following minimum details must be provided in the Manual:
(a) About Photovoltaics
(b) About solar street lighting system - its components and expected performance
(c) About PV module.
(d) About CFL.
(e) About battery.
(f) Clear instructions about erection of pole and mounting of PV module and lamp housing assembly on the pole.
(g) About electronics.
(h) About charging and significance of indicators.
(i) DO's and DONT's,
(j) Clear instructions on regular maintenance and trouble shooting of the solar street lighting system.
(h) Name and address of the contact person in case of non-functionality of the

solar
street lighting system.

ANNEXURE- " 12"

FORMAT FOR WARRANTY CARD TO BE SUPPLIED WITH EACH SOLAR LANTERN, SOLAR HOME SYSTEM & STREET LIGHTING SYSTEM.

1. Name & Address of the Manufacturer/Suppler of the system.

2. Name & Address of the Purchasing Agencies.

3. Date of supply of the system.

4. Details of PV Module(s) supplied in the system
   - Make (Name of the manufacturer)
   - Model
   - Serial No(s)
   - Wattage of the PV Module(s) under STC
   - Warranty valid upto.

5. Details of Battery
   - Make(Name of the manufacturer)
   - Model
   - Batch/Serial No(s)
   - Rated V & AH capacity at C/20/C/10 rate at 20C
   - Warranty valid upto.

6. Details of Electronics & other BOS items
   - Make(Name of the manufacturer)
   - Model
   - Serial No(s)
   - Warranty valid upto

7. Designation & Address of the person to be contacted for claiming Warranty obligations.

(Signature)

Name & Designation

Name & Address of Manufacturer/Supplier
(SEAL)

Place & Date

(During the warranty period MNRE/State Agencies/users reserve the right to cross check
the performance of the systems with the minimum performance levels specified in the MNRE specifications)

GENERAL TERMS & CONDITIONS

This Rate Contract and Supply Orders placed against the rate Contract are governed by the "General Terms & Con
ditions" as contained in the following forms:
(i) Form no. DGS&D - 68 (Revised) "General Conditions of Contract"
(ii) Form no. DGS&D - 69 "Conditions of Contract governing Rate Contracts"
(iii) Form no. DGS&D - 229 "Instruction to tenderers quoting against Tender Enquiries issued by the DGS&D"
(iv) Form no. DGS&D - 1001 "General terms & conditions governing the Rate Contract and Instructions to Direct Demanding Officers and Consignees.

The above forms are saleable documents. These can also be down loaded from DGS&D website www.dgsnd.gov.in

1. TENDER DOCUMENT:

The complete tender document consists of :
(a) DGS&D-242 i.e.(Scedule to tender enquiry) alongwith annexures
(b) DGS&D-68A, and DGS&D-69A
(c) List No. 1 and List No. 9

The tenderers are required to submit all the above documents completely filled & digitally signed failing which their offer is liable to be ignored.

2. PURCHASER:
(a) President of India
(b) Governer(s) of State(s)
(c) Heads of Union Territories
(d) Officers of Public Sector Undertakings/Bodies & Corporations

3. GUARANTEE/WARRANTY CLAUSE:

a. Solar Lantern, Solar Home Lighting System with Structure & Solar Street Lighting System with Mounting Structure & Pole (Incl. Battery):- 24 months from the date of delivery / installation, which ever is later.

b. Spare PV Module for Solar Lighting System : 10 years (min.) from the date of delivery / installation, whichever is later.

4. DUTIES & TAXES:

(i) **EXCISE DUTY**
The tenderers must clearly indicate the rate/quantum of Excise duty applicable and payable by them irrespective of the fact whether the quoted prices are inclusive or exclusive of Excise Duty. They should also indicate their Excise Duty Registration. In the case of Small Scale Industrial Units, they should indicate the rates of Excise Duty in various turnover slabs.

If a tenderer states that the Excise Duty is NIL,he must intimate the basis for the same and also confrim that no Excise Duty will be charged by him under any circumstances.

If a tenderer states that the Excise Duty is not applicable at present but will be charged extra if it becomes applicable later on, their offer will be loaded by the normal rate of Excise Duty for the equitable comparision of prices.If however, the tenderer confirms that they shall not charge any Excise Duty even if it becomes payable at a later date for whatever reasons, no loading of Excise Duty in such a case will be done.

The tenderers should furnish the details of their turn over and the Excise Duty paid by them in the last three financial yearsin the following formats:

Financial Year	Total Turnover	Total Excise Duty paid	Excise Duty paid on subjects stores
Last			
One year before			
Two years before			

(ii) **SALES TAX**

Tenderer should indicate whether the prices quoted are exclusive or inclusive of sales tax.They should indicate the rate(s) of VAT/Local Sales Tax (as may be applicable) and Central Sales Tax with & Without Form- "C". In case,they are exempted from payment of sales tax,a copy of the Exemption Certificate issued by the appropriate authority may be furnished.

(iii)**OCTROI DUTY AND LOCAL TAXES**

Normally the stores supplied to Government Departments against Government Contracts are exempted from levy of town duty,Octroi Duty,Terminal Tax and other levis of local bodies against production of Exemption Certificate from authorised officers. Whenever required, the Contractors should approach the purchaser/Indentor/Consignee for the same in time along with despatch details to avoid payment of such local taxes or duties.

5.PERFORMANCE CRITERIA/CUT-OFF DATE:

(a) The tenderes who are current/past Rate Contract holders shall submit self- vetted performance statements for the last three rate contracts as on cut off date as specified in the schedule to tender in Form B-1, B-2 and B-3.

(b) Firms shall also submit complete details of the performance statement covered by Form B-1 in the Appendix-A attached below for the last three rate contracts along-with their tender.

The details as per Para (a) and (b) above should be submitted with the tender, failing which, the offers shall be summarily ignored. Further, in case the details provided by the firm as per Para (a) and (b) above are found to be wrong at a later stage, a penalty of debarring the firm for three years shall be imposed.

(c) The offer of the tenders who are current/past rate contract holders, will be considered only if they meet the following minimum level of performance as on cut off date,if otherwise eligible.

% Performance level for current Rate Contract (Year 2010 - 2011)=85
(Self-vetted)
% Performance level for previous Rate Contract (Year 2009 - 2010)=95
(Self vetted)
% Performance level for the year before(Year 2008 - 2009)=100
(Self vetted)

Certain queries have been received by DGS&D regarding the information to be furnished by the tenderers in the performance statements.The details pf the queries received and DGS&D's comment thereon are attached below ar Annexure-B.

The purchaser, however, does reserve the right to consider also those firms who have executed supplies to a lower extent.

(d) The provisions of the above clause shall not apply for the new items.In case the performance levels have been shown as 0(zero) such items may be treated as new items.

6. PAYING AUTHORITY:

Chief Controller of Accounts, Department of Supply, New Delhi or its Regional Accounts Officers at Mumbai/Kolkata/Chennai as applicable.

7. PAYMENT TERMS:

Solar Lantern:98% against inspection & delivery and balance 2% after acceptance of stores, free training to the local custodians & submission of B/G. Solar Home &

Street Light: 90% against inspection & delivery and balance 10% after installation commissioning & final acceptance of stores, free training to local custodians & submission of BG for the same amount valid till 2 months beyond the G/W.

For Details, refer to Clause 12 of DGS&D-1001

8. TERMS OF DELIVERY & DESPATCH INSTRUCTIONS:
Terms of Delivery are :Free delivery at consignee's site including installation
For details of Terms of Delivery & Despatch instructions refer Clause-4 of DGS&D-1001.

9. FALL CLAUSE:
As contained in Clause-15 of DGS&D-1001.

10. QUALITY ASSURANCE:
(a) QUALITY ASSURANCE AUTHORITY:
ADG(QA), DGS&D, New Delhi

(b) QUALITY ASSURANCE OFFICER:
Director/Quality Assurance Officer of the area concerned or his authorised representatives

11. JURISDICTION/ARBITRATION CLAUSE:
Jurisdiction is place of issue of the Rate Contract.Sole Arbitrator is appointed by DG(S&D). For details refer Clause-23 of DGS&D -1001.

12. TRANSIT INSURANCE, RECEIPT OF STORES & NOTIFICATION OF DAMAGES AND LOSS, IF ANY:

Contractor is responsible for Transit Damage.Consignee to notify Transit Damage/Loss if any within 45 days of arrival of stores at destination.For details refer Clause-17 of DGS&D-1001.

13. REGISTRATION:
Tenderer should be registered with DGS&D/NSIC for the subject stores as on the date of opening of bid.All tenderers are, therefore, advised in their own interest to get themselves registered with DGS&D/NSIC.

14. DELIVERY PERIOD:
Tenderes should quote guaranteed monthly rate of supply (item-wise) and time, if any required for commencement of supply after placement of order, failing which, the tender will be treated as incomplete. For details refer Clause-10 of DGS&D-230.

15. NOTE FOR TENDER OPENING AND OFFER VALIDITY:
Tenderes should note if the date of tender opening (or date upto which offer is to remain open) is declared a closed holiday by the Govt., the tender shall be opened on the next working date (Offer shall remain open for acceptance till the next working day)

16. DOCUMENTS TO BE SUBMITTED ALONGWITH BID:
(i) Demand draft of requisite amount in favour of DGS&D, New Delhi.
(ii) Complete self-vetted Performance Reports for the current and preceding two rate contracts.
(iii) Complete Registration Certificate with DGS&D/NSIC with all amendments .The same should be valid on tender opening date.
(iv) Compliance to technical specifications :-
The Compliance statement should be submitted in the following format:

Para No.	Specifications As per T.E.	Specifications Offered	Compliance (Yes/No)	In case of non-compliance, Deviation From T.E.Specn in unambiguous terms

(v) Complete BIS Licence with all endorsements.This should be valid on tender opening date(if applicable)
(vi) Documents required to be submitted under Special Terms & Conditions(if applicable)

Please note that non-submission of the above said documents may render your offer liable to be ignored.

17. Revocation/Cancellation of rate contract: As per clause 24 of DGS&D-1001.

18. PACKING & MARKING:
As contained in Clause 11 of DGS&D-1001

19. DOCUMENTS FOR FULLY IMPORTED STORES:
The Tenderers quoting for fully imported stores are required to submit the following documents along with their tenders:-
(a) Copies of Bills of entries and/or other document(s) duly authenticated by custom authorities indicating the assessed value taken by customs for the purpose of levy of customs duty.The abetment charges, if any, shall also be indicated.
(b) Classification and rate of customs duty on the date of their tender.
(c) Assessment of element of freight by weight and volume.
(d) Import/Export Code No. issued by DGFT.
NOTES:
The DGS&D may require to go into costing aspect of the items tendered in order to arrive at the reasonableness of the cost.For this the tenderers may be required to submit copies of the Bills of Entry corresponding to the imported stores being quoted. offers of such tenderers who fail to submit their document as required by the DGS&D are liable to be rejected.

20. CONCLUSION OF PARALLEL RATE CONTRACTS:
DGS&D reserves the right to arrive at the lowest acceptable prices and to conclude Rate Contracts with the firms falling within a reasonable price range.However, in cases where the price of lowest acceptable is considered reasonable but there are not enough number of firms within the reasonable price range, Rate Contract will be concluded with lowest acceptable firm. DGS&D reserves the right to make counter offers to the firms whose rates fall within the range of lowest acceptable + 20% and to conclude parallel rate contract with such firms who accept rates within the counter offered prices.

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Special Terms & Condition

Tender No Solarlight/IT-2/RC-D3020000/0412/82

Sr No	Heading Condition
1	**Registration :**

1. Registration:

Tenderers registered with DGS&D/NSIC for the subject stores of the tender enquiry on or before the date of tender opening will only be considered for award of the rate contract. The firms who are not registered are advised to get themselves registered before the date of tender opening. In case of NSIC registered suppliers, they should be registered under Single Point registration scheme for the items as mentioned above and their registration should be based on a favorable capacity report from QA Wing of DGS&D. NSIC registration should specifically indicate that their registration has been done based on a favorable capacity report from QA Wing of DGS&D. The tenderers who are already registered with NSIC but if the same is not based on favorable capacity report from DGS&D QA Wing, their special capacity report from QA Wing of DGS&D must be received in DGS&D on or before the tender opening date. However, the firms who are NSIC regd. and past suppliers against DGS&D rate contract of Solar Lantern, Solar Home Lighting System with Structure & Solar Street Lighting System with Mounting Structure & Pole & Spare PV Module for Solar Lighting System, special capacity report shall not be required for such specific items, which they have supplied in the past.

2 **Submission of tender :**

1) Tenderers are required to submit their tender alongwith following documents manually through Tender Box (located at DGS&D, 2nd Floor, close to reception of this office, Jeevan Tara Building, 5, Sansad Marg, New Delhi-110001) in sealed cover (in duplicate) super scribing with the tender enquiry No: Solarlight / IT-2/ RC-D3020000 / 0412 / 82 or through Speed Post / Regd. Dak to be addressed to Tender Receipt Cell, to be opened on 15.04.2011 at 03.00 PM in presence of quoting bidders.

The following documents alongwith tender enquiry may be downloaded from DGS&D website and submitted duly filled and signed complete in all respect:-

I. Tender Enquiry of subject Stores (Form DGS&D- 242)
II Form
i. DGS&D 241
ii. DGS&D-68-A
iii. DGS&D-69-A
iv. List No.-1
v List No. 9
vi. Proforma for Performance Statement

All above forms are available on DGS&D website: http://www.dgsnd.gov.in, under heading of "OTHER FORMS" sub heading "FORMS RELATED TO TENDER ENQUIRY" being displayed on portal of DGS&D website. You may download these forms and enclose tender fee of Rs.1000/- in the prescribed form alongwith main Tender Enquiry (Form DGS&D- 242) available on website under heading "TENDER ENQUIRY" duly filled and signed complete in all respect and submit through tender box on the due date and time mentioned above.

2. Please ensure that your tender must reach this office by 02:30 PM on 15.04.2011. No responsibility will be taken for postal delay or nondelivery / non-receipt of tender documents.

Notes to the tenderers:
i) Demand Draft towards the cost of tender set of requisite amount in favour of DGS&D, New Delhi
(ii) Valid Registration Certificate with DGS&D / NSIC
(iii) Performance report for the last 3 R/Cs.
(iv) Information required as per "Technical requirement of T/E" against each item.
(v) Technical Compliance Statement.

Tender No Solarlight/IT-2/RC-D3020000/0412/82

Sr No	Heading Condition
	(vi).The tenderer shall submit Demand Draft towards the cost of tender set latest within three days from the date of tender opening. Contract as a result of this Invitation to Tender shall be governed by the general terms & conditions as contained under form DGS&230, DGS&D-231, DGS&D-237 of the booklet DGS&D-229 and DGS&D-68®, DGS&D-71 & DGS&D-1001 as amended upto date.
3	**Special Terms:** i. Price Band as per terms stipulated in the tender enquiry ii MRP : Prices determination for award of R/C will also be based on reduction on MRP which will be required to be submitted by the firm along with their tender itself. iii. The word MNES may be read as MNRE wherever existing in the tender notice / tender enquiry

CHECK LIST FOR TENDERERS

Tenderers are requested in their own interest to check the following before they submit their bids:-

1.	Have all the columns pf Form DGS&D-68 A, DGS&D - 69 A, List 1 and List 9 listed in Clause 1 of General Terms & Conditions (GTC) been filled up?	**Yes**	**No**
2.	Whether rates(s)/quantum of Excise Duty indicated (Refer Clause 4(1) of GTC)?	**Yes**	**No**
3.	Whether rates(s) of Local Sales tax and Central Sales tax indicated (Refer Clause 4(1) of GTC)?	**Yes**	**No**
4.	Have you indicated the Terms of Delivery (Refer Clause 8 of GTC)?	**Yes**	**No**
5.	Has the delivery period been indicated (Refer Clause 14 of GTC)?	**Yes**	**No**
6.	Have you indicated the validity of your offer (Refer Clause 15 of GTC)?	**Yes**	**No**
7.	Confirmation about availability of testing facilities as atipulated in the specifications / tender enquiry?	**Yes**	**No**
8.	Acceptance of all terms and conditions of Tender Enquiry including payment terms, Guarantee/Warranty and those contained in DGS&D-68(Revised), DGS&D-69, DGS&D-229 and DGS&D-1001(Deviation, if any, should be specifically indicated).	**Yes**	**No**
9	Whether you have accepted Arbitration Clause as per Clause 24 of DGS&D-68(Revised)	**Yes**	**No**
10	Have you enclosed the following documents?	**Yes**	**No**
(i)	Technical Compliance Statement in the perscribed format with the details of deviations?	**Yes**	**No**
(ii)	Photocopy of valid Registration Certificate of subject stores with DGS&D/NSIC or DGQA(for Defence only) (Refer Clause 13 of GTC)?	**Yes**	**No**
(iii)	Self-vetted Performance Statements as per Form B-1,B-2,B-3 & Appendix-A (Refer Clauses 5 of GTC)?	**Yes**	**No**
(iv)	DGS&D-242 (Schedule to tender enquiry), tender forms DGS&D-68A, DGS&D-69 A, List No.1 and List 9?	**Yes**	**No**
(v)	Documentary evidence to establish your meeting the eligibility criteria (if applicable)?	**Yes**	**No**
(vi)	Copy of BIS License (if applicable)?	**Yes**	**No**
(vii)	List of Service Centres (if applicable)	**Yes**	**No**
11.	Special Documents for Fully Imported Stores (if applicable)Have you enclosed following documents?	**Yes**	**No**
(i)	Copies of bill of entries/ or any other document (s) duly authenticated by customs authorities indicating the assessed value taken by customs for purpose of levy of customs duty. The abetment charges, if any, shall also be indicated.	**Yes**	**No**
(ii)	Classification and rate of customs duty on date of tender	**Yes**	**No**
(iii)	Estimated freight by weight and volume	**Yes**	**No**

12	Whether training confirmed (if applicable)	**Yes**	**No**
13	Whether installation and commissioning confirmed? (if applicable)	**Yes**	**No**
14	Whether AMC and Buy- Back prices quoted in the price bid? (if applicable)	**Yes**	**No**
15	Whether Net Dealers price (NDP) duly certified by auditor quoted in the price bid? (if applicable)	**Yes**	**No**
16	Import/Export Code No. issued by DGFT.	**Yes**	**No**

Appendix-A

Annexure-B

PLEASE NOTE THAT NON-SUBMISSION OF THE ABOVE INFORMATION/DOCUMENTS MAKES THE OFFER LIABLE TO BE IGNORED WITHOUT ANY FURTHER REFERENCE TO THE BIDDER.

Amendment to Following Tender Enquiry

No Amendment Till Date