# THE ADMINISTRATION OF UNION TERRITORY OF LADAKH LADAKH AUTONOMOUS HILL DEVELOPMENT COUNCIL LEH LADAKH

OFFICE OF THE PROJECT DIRECTOR, LREDA / CHIEF EXECUTIVE OFFICER LADAKH RENEWABLE ENERGY DEVELOPMENT AGENCY (LREDA)

TENDER NOTICE NO: NIT No. 13 of 2022-23

# TENDER DOCUMENT FOR

WORK: "Purchase of invertors & cards/solar power plant items."

# LREDA/ACCTTS/M&E Capex/2022/329-33 TENDER NOTICE NO: NIT NO: 13 OF 2022-23 DATED: 22-07-2022

Sd/

Project Director LREDA. Leh-LAHDC (UT)

Iredaleh@gmail.com www.ladakhenergy.org www.tenders.ladakh.gov.in 09596982234

# INDEX

S. No.	ITEM	Page No	
1	Check List	3	
2	Tender Notice	4	
3	Tender Form-1	5	
4	Tender Form-II	6	
5	Instruction to bidder	7-8	
6	Schedule of General Particulars of bidder	9	
7	Agreement	10	
8	General conditions of contract	11-13	
9	Special conditions of contract	14	
10	Scope of supply	15	
11	Technical specification	16-18	
12	Other Conditions	18-19	
13	Price Bid	20-21	

## NAME OF WORK:

"Supply of PCU (Invertors) of various capacities & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty"

## Minimum Criteria for Qualification:

SNO	Description (submitted or not)	Yes	No
1.	Earnest Money Details		
2.	Tender Documents Fee		
3.	GST Certificate		
4.	GST Clearance Certificate Latest minimum of 3months		
6.	IEC Certificate & ISO Certificate as per PART A of the Company		
7.	Experience Certificate (of the bidder)		
8.	Completion Certificate (of the bidder)		
9.	Authorized Dealership Certificate		
10.	Test Report		
10.	In case bidder is registered out of Leh District (Necessary certificate on letterhead of local dealers certifying to carry out warranty for 5years on the behalf of main bidder)		

Signature of Bidder

#### THE ADMINISTRATION OF UNION TERRITORY OF LADAKH LADAKH AUTONOMOUS HILL DEVELOPMENT COUNCIL, LEH LADAKH

### OFFICE OF THE PROJECT DIRECTOR, LREDA/CHIEF EXECUTIVE OFFICER

# **Tender Notice**

#### **NIT NO: 13**

For and on behalf of the Lt Governor of Union Territory of Ladakh tenders affixed with Rs.5/- (Rs. Five Only) revenue stamps are invited from registered manufacturers/suppliers/fabricators for *"Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty".* The detail tender documents containing broad specification based on requirements and schedule of works is available at the office of the Project Director, Ladakh Renewable Energy Development Agency (LREDA), Leh on payment of Rs. 1000/- (Rupees One Thousand Only). The tender documents can also be downloaded from http:// www.leh.nic.in, www.tenders.ladakh.gov.in , but payment should be made. The tenders should be addressed to the Project Director, Ladakh Renewable Energy Development Agency, Leh, Ladakh and should reach the office of the same on 15-08-2022 before 2:00 p.m. and shall be open on same day or any other day as convenient to the committee members as per the following terms/conditions and as per the following terms/conditions and specifications for *Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty in Union Territory of Ladakh:* 

- 1. 4Nos: 20KW PCU (Invertors) at LINGSHED (Motorable)
- 2. 1Nos: 20KW PCU (Invertors) at DIPLING (Non Motorable)
- 3. 1Nos: 40KW PCU (Invertors) at BUKSHADHO (Motorable)
- 4. 1Nos MCCB 100amps 4 Pole to Kharnak SPV (Motorable)
- 5. 50mtr 4 core 70 sqmm poly ethylene copper wire to LREDA office (Motorable)

No: LREDA/Acctts./M&E Capex/2022/ DATE: 22/07/22 Project Director, LREDA/CEO LAHDC-LEH

Copy to:

- 1. Project Director, LREDA, Leh for Information
- 2. Technical Director, NIC, Leh with the request to put NIT on official website.
- 3. Assistant Director, Information, Leh with the request to kindly publish the NIT in one of the leading National and one state English Newspaper.

4. Notice Board, Project Director, LREDA Office, Leh.

5.

\_\_\_\_ for Information.

4

#### **TENDER FORM-I**

To, The Project Director/ Chief Executive Officer Ladakh Renewable Energy Development Agency, LREDA-LAHDC Leh Ladakh

#### Subject: "Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty"

Dear Sir,

In compliance with your invitation for tender, the undersigned hereby offers for "Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty" in accordance with the provisions of the contract and agrees that upon receipt of written notice of award of the contract and within 07 calendar days, the undersigned will execute contract form in accordance with the tender as accepted.

The undersigned further agrees that if awarded the contract, he will complete this work within 60 days after the date of receipt of notice to proceed with the work and that he will carry out the work within the time limit fixed in accordance with the conditions of the contract.

A corporation organized in the state of .....or A registered partnership firm consisting of ...... Partners or Authorized dealers

Signature

Title

Address

### **Tender Form-II**

1. Tender notice no.	NIT No. 13 of 2022-23
2. Particulars of work	"Supply of PCU (Invertors) of various capacity & PCU PARTS/
	SOLAR POWER PLANTS ITEMS at various sites of Leh
	District Union Territory of Ladakh with minimum 5 years of
	warranty".
3. Completion period	60 days (From the date of award of work)
4. Price of tender document	Rs 1000/- (Rs One Thousand only)
	A/C DETAILS:
	JAMMU AND KASHMIR BANK
	(PROJECT DIRECTOR LREDA)
	A/C NO: 0069040500001242
	IFSC CODE: JAKA0PRIEST

5. Bid security declaration:- The bidder has to sign a Bid declaration accepting that if the bidder withdraw or modify its bid during the period of validity i.e. not less than 90 (ninety) days from the bid due date and if the bidder is awarded the contract and fail to sign the contract or to submit a performance security before the deadline define in the bid documents, the bidder will be suspended for participation in the tendering process for the work of LREDA,PDC/PDD, PWD, CPWD, I&FC, REW, PHE, MoRTH/NHAI/NHIDCL and works under centrally sponsored schemes for a period of one year from Bid due date of this work. (**Bid security declaration should be on Contractor letter Pad or Affidavit, the content of declaration are enclosed with the NIT**)

6. Period of validity of Tender	6 Months
7. Date of commencement of sale of tender document	23/07/2022
8. Last date for sale of tender	17/08/2022
9. Last date and time for receipt of bids	17-08-2022 before 2:00 p.m
10. Time and date of opening of technical bids	Same day or any other day as convenient to members
11. Venue of opening of tender	Deputy Commissioner/CEO Office, Leh -Ladakh
Seal of company	(Signature of Bidder)
Date:	

# PART-A INSTRUCTION TO BIDDER

- To qualify for award of contract each bidder should submit their certificates of prequalification documents in a separate envelope as **Cover-I**. Missing of any certificate shall not be entertained for bidding purposes. The Envelope **Cover-I** should contain the following certificates and proof
- GST Registration Card
- Proof and Clearance certificate of:
  - i. Latest GST Clearance certificate.
- Authorized dealerships certificate from the manufacturer.
- Tender Documents fee
- Efficiency IEC 61683, Environmental Testing IEC 60068, Inverter Testing IEC 62040 part III
- ISO 9001 & 14001 of the main company.
- Experience certificate must be either of 5Kwp solar power plant off grid or Power Conditioning unit installation minimum 5KVA with completion certificate
- All the above certificates/documents shall be submitted by the firm duly signed with seal and should by the bidder
- 2. The Price Bid should be submitted on the prescribed form to be issued by the Project Director, LREDA/CEO, LAHDC-Leh in a separate envelope **Cover-II** to be opened after the finalization of pre-qualification documents submitted in Cover-I.
- 3. Tenders should be received in Project Director, LREDA Office Leh Office on the date and time as mentioned in tender form.
- 4. Project Director, LREDA Leh, reserves the right to split up the orders before various bidders and also the right not to accept the lowest or any other tenders or all the tenders in whole or in part without assigning any reason for such non acceptance.
- 5. Any tender not accompanied by earnest money will be disqualified and no further consideration will be given to such tender. Bidders may note that no relaxation in this regard will be made.
- 6. Validity of the offer should be six months after the date of opening of tenders. Without this validity the tenders will be rejected .The validity must be mentioned on the envelope otherwise the tender will not be opened.
- 7. Before submitting the tender, bidders are required to make themselves fully conversant with the technical specification, format of identification reports etc. so that no ambiguity arises at a later date in this respect.
- 8. All information of the tender shall be in English, information in any other language should be accompanied with its translation in English. Failure to comply with this may disqualify the tender.
- 9. The tender must contain the name, residence and places of business of this person or persons submitting the tender and maybe signed and sealed by the bidder with his usual signature.

- 10. If the bidder finds discrepancies in or omissions from the specifications or other documents or if he is in doubt as to their meaning, he should at once intimate Project Director, LREDA/CEO, LAHDC-Leh and obtain clarification in writing prior to submitting the tender.
- 11. Any approach from the tender representative or his agent trying to influence the decision on the tender, officially or otherwise shall render the tender liable to be summarily rejected.
- 12. The price offered should be inclusive of all charges what so ever may be.
- 13. Tender should be submitted in two separate sealed envelopes as mentioned below:

First envelope should bear tender no. and super scribed "**Cover-I**" should all the paper of tender documents as described in point no.1, except price bid duly signed should be submitted in the first envelope. All technical conditions should be clearly explained and submitted in the first envelope.

Second envelope bearing NIT number and super scribed "**Cover-II**" should contain only price bid. Any financial conditions, payment terms, rebate etc. mentioned in price bid will make the tender invalid. Therefore, it is in the interest of the bidder not to write anything extra in part-2 except price.

14. The procedure of opening of the tender shall be as under:-

First envelope bearing NIT number and super scribed "**Cover-I**" shall be opened on the date as mentioned in tender notice by Project Director, LREDA Leh, or his Representative in the presence of tenderers who choose to be present

- 15.Second envelope bearing NIT number and super scribed "**Cover-II**" shall be opened on the date and time as decided by the tender committee. Second envelope of only those bidders shall be opened whose first envelope is found technically/commercially eligible.
- 16. Erasures and other changes should be initiated by the person /persons signing the tender
- 17. In the event the successful bidder failing to sign the contract with Project Director, LREDA/CEO, LAHDC-Leh within specified time or withdraws his offer within the validity period or fails to accept the order for any reason whatsoever, then earnest money deposited by him shall be forfeited by Project Director, LREDA.
- 18. The bidder should submit price bid duly signed on the original schedule attached with these tender documents.
- 19. Each page of this tender document should be signed by the bidder.
- 20. The bidder should submit form F1 attached with this tender document duly completed in all respect while submitting part-1 of the tender document.
- 21. The Bidders should note that carriage to site includes anywhere in the Leh District and should quote prices taking this into account which may include manual carriage in some places. The list of sites/beneficiaries would be communicated to the bidder at the appropriate time.

### Form -F1

## SCHEDULE OF GENERAL PARTICULARS OF BIDDER

- 1. Name of the bidder :
- 2. Postal address :
- 3. Telegraphic address :
- 4. Telephone/Telex/Fax etc :
- 5. Name and designation of the representative of bidder to whom all reference shall be made to expeditious technical coordination :
- 6. Amount and reference of earnest money deposited :
- 7. Has anything extra than price of one item (As mentioned in price schedule) has been written in the price schedule :

# AGREEMENT

(On minimum Rs. 100/- Stamp Paper)

This Agreement made on the...... day of ..... Two thousand and Ten between M/s..... thereinafter referred to as "the contractor" on the one part and the **LADAKH RENEWABLE ENERGY DEVELOPMENT AGENCY**, LEH (hereinafter called as "LREDA") on the other part.

Where as LREDA decided to award the work of "*Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty*". (hereinafter called "works") and for this purpose the details of the work have been specified in general conditions of contract, Scope of the work, Technical particulars and price schedule and Annexure. For the purpose these documents have been signed by M/s ......On behalf of the contractor and by Project Director, LREDA and which shall form the part of this contract (Although separately set out herein) and are included in the expression "Contract".

And whereas LREDA have accepted the tender of the contractor for carrying out the work of on rate contract basis "Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty". as per the Price Schedule and on the terms and conditions as mentioned in contract.

Now therefore these present witnesses and the parties aforementioned hereby agree and declare that in consideration of the requirement of the said work and satisfactory performance, the LREDA will pay the contractor an amount specified in the Work Orders issued by Offices of LREDA from time to time under the provisions of this rate contract.

In witness where of the parties have signed this deed hereunder.

Signed

Signed

(For &on behalf of the LREDA)

(For &on behalf of the contractor)

In the presence

Witness

1.

2.

#### PART - B GENERAL CONDITIONS OF CONTRACT

1. In construing these general conditions, special conditions and general technical requirements, etc., the following words shall have the meaning herein assign to them unless there is anything in the subject/contact in consistent with such construction.

PROJECT DIRECTOR, LREDA shall mean Project Director, LREDA/Chief Executive Officer, Ladakh Autonomous Hill Development Commissioner, Leh

LREDA shall mean the Project Director or his representative of Ladakh Renewable Energy Development Agency (LREDA) with Head Office at Leh and shall include its successors and assignees.

The contractor shall mean the bidder whose tender shall be accepted by Project Director, LREDA Leh and shall include such bidder's hires, legal representative, Successors and Assignees.

Govt. shall mean the Government of Union Territory of Ladakh.

- 2. The Bidder shall be deemed to have carefully examined to general conditions, special conditions, general technical requirements, instructions etc. If he shall have any doubt as to the meaning of any portion of any conditions/ specifications etc., he shall before signing the contract said forth the particulars thereof and submit them to Project Director, LREDA Leh in order that such doubts may be removed.
- 3. Project Director, LREDA may distribute the work among the other firms/contractors on the lowest price.
- 4. A formal agreement shall be entered between Project Director, LREDA/Chief Executive Officer,-Leh and the Bidder for the proper fulfillment of the contract. The expenses of completing and stamping the agreement shall be borne by the contractor.
- 5. The work shall be completed within Sixty days from the date of award of the work order/date of start whichever is earlier failing which penalty at the rate of 1% per week subject to maximum of 10% shall be imposed.
- 6. The offer shall be considered as valid up to 6 months after the date of opening of the tender. In case bidder withdraws his offer or fails to accept the order for any reason whatsoever then the earnest money deposited shall be forfeited by Project Director LREDA, Leh.
- 7. The general technical requirements mentioned are mainly for the guidance of the bidder. These requirements of necessity include some specific elements of construction and material but are not intended to preclude ingenuity of designs or other improvements. If the bidder proposes any deviations from this requirement they will be considered provided they are necessary either to improve the utility, performance and efficiency or to secure overall economy.
- 8. The bidder shall have to comply with all rules, regulations, laws and byelaws enforced by local and state Govt. police and also the organization in whose premises the work has to be done. PROJECT DIRECTOR, LREDA, LAHDC-Leh shall not have any liability on this account.
- 9. The high court of judicature at Srinagar/ Jammu and courts subordinate there to at Leh shall alone have jurisdiction to the exclusion of all other courts.

- 10. The Bidder shall not, without the consent in writing of PROJECT DIRECTOR, LREDA, LAHDC-Leh, unreasonably withheld, assign or sublet this contract or any substantial part thereof to any other party.
- 11. The right of the Bidder to proceed with work shall not be terminated nor with the contract price reduced herein because of any delay in the completion of the work due to unforeseen causes beyond the control and without fault and negligence of the Bidder including (but not restricted to) act of God or public enemy, action of Government in its sovereign capacity, floods, epidemics, strikes, lockouts, fires and accidents, In the event of any of the aforesaid contingencies will be promptly kept informed by the Bidder by fax/telegram followed by confirmation in writing with documentary proof within fifteen days of commencement and cessation of force majeure circumstances. Under such circumstances reasonable extension of time shall be granted by PROJECT DIRECTOR, LREDA, LAHDC-Leh.
- 12. If the Bidder shall neglect to execute the work with due diligence and expedition to, or shall refuse or neglect to comply with any reasonable orders given to him by PROJECT DIRECTOR, LREDA, LAHDC-Leh in connection with the work, or shall contravene any provision of the contract, PROJECT DIRECTOR, LREDA, LAHDC-Leh may give seven days notice in writing to the contravention complained of and if Bidder shall fail to comply with the notice within reasonable time, then in such case PROJECT DIRECTOR, LREDA, LAHDC-Leh shall be at liberty to employ other agency to perform such work as the Bidder may have neglected to do or if PROJECT DIRECTOR, LREDA, LAHDC-Leh shall think fit it shall be lawful for him to take the work wholly, or in part, out of contractor's hand and give it to another person on contract at reasonable price. It the cost of executing the work as aforesaid shall exceed the balance due to the contractor, and the Bidder fails to make good the deficiency, PROJECT DIRECTOR, LREDA, LAHDC-Leh may recover it from the Bidder in any lawful manner.
- 13. LREDA on behalf of PROJECT DIRECTOR, LREDA, LAHDC-Leh shall have at all reasonable time to assess the work carried out by the Bidder against this contract.
- 14. All the work shall be carried out by the Bidder to the reasonable satisfaction of PROJECT DIRECTOR, LREDA, LAHDC-Leh.

These general conditions shall apply to the extent that provisions in other parts of the contract do not supersede them.

- 15. If any question, dispute or differences whatsoever shall arise between PROJECT DIRECTOR, LREDA, LAHDC-Leh and the bidder in connection with this agreement except as to matters the decision for which has been specifically provided, either party may forthwith give to the other notice in writing of the existence of such question, dispute or difference and same shall be referred to the sole arbitration of the Government of Union Territory of Ladakh. This submission shall be deemed to be submission to arbitration within the meaning of The Arbitration and Conciliation Act 1996 and rules made thereafter or any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings under this clause. The award of the arbitrator shall be final and binding on the parties. Work under the agreement shall continue during the arbitration proceedings, unless the arbitrator otherwise directs.
- 16. PROJECT DIRECTOR, LREDA, LAHDC-Leh may at any time, by notice in writing to the Bidder either stop the work altogether or reduce or cut it down. If the work is stopped all together, the legitimately incurred by him as on preparation of the execution of the work up to the date on which such notice is received by him. such expenses shall be assessed by PROJECT DIRECTOR, LREDA, LAHDC-Leh, If the work is cut down the Bidder will be paid for the work as so cut down, but in neither case will be paid any compensation whatsoever

for the loss or profit which he might have made if he had been allowed to complete all the work included in the contractor.

- 17. The Bidder shall be responsible to comply with the provision of labour laws enforced in the state of Union Territory of Ladakh, including the minimum wage act or any enactment in suppression, extension or modification thereof.
- 18. Any work not covered in the scope of the work but essentially required for proper completion of the work and commissioning of the scheme shall be carried out by the Bidder on mutually agreed rates.
- 19. The quantities are tentative (as specified in NIT) and may vary widely for which no claim whatsoever shall be entertained by PROJECT DIRECTOR, LREDA, LAHDC-Leh except specially mentioned in the agreement.

### PART - C SPECIAL CONDITIONS OF CONTRACT

- 1. The bidder should quote their rates as per specifications laid down by PROJECT DIRECTOR, LREDA, LAHDC-Leh mentioned in the tender documents.
- 2. This tender and the rates F.O.R. Leh District shall be approved. Work orders from time to time as per beneficiary demand and requirement will be awarded from Offices of LREDA to any firm so approved at the approved rates. Therefore The Project Director, LREDA Leh may accept the lowest rate of the eligible bidder and for this purpose; negotiations may be held with the eligible bidders. PROJECT DIRECTOR, LREDA, LAHDC-Leh can award order for *to* any of its approved Suppliers. However PROJECT DIRECTOR, LREDA, LAHDC-Leh is not bound to award work order for any site to any one specific firm approved in tender, thus any firm approved under this tender may or may not get any order from PROJECT DIRECTOR, LREDA, LAHDC-Leh during the agreement period.
- 3. The bidder should be capable of carrying out the entire work and should expect no help in this regard from LREDA.
- 4. All clearance, permissions etc. for carrying out the work shall have to be obtained by the bidder from competent authorities. All local problems shall have to be tackled by the tenderer. LREDA may extent help only by writing letters to Leh authorities.
- 5. All the material supplied by the Bidder will be guaranteed for 5 Years from the date of completion of work(s) against any defect of material, workmanship, etc. Bidder shall rectify any such defects within 15 days of intimation of LREDA to Contractor, failing which PROJECT DIRECTOR, LREDA, LAHDC-Leh will be free to rectify / repair such defects at the cost of Bidder and will adjust the same from the security/ performance guarantee of contractor. In case expenditure occurred on such work exceeds the security/ performance guarantee, PROJECT DIRECTOR, LREDA, LAHDC-Leh shall recover it from the Bidder in any lawful manner.
- 6. All materials will be guaranteed for the period as stated above, failing which penalty equal to 2% of the contract cost for each 1% drop in guaranteed output will be imposed to the contractor.

### PART - D SCOPE OF WORK

**The scope of work includes** "Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty". **as mentioned below:-**

- i. 5Nos: 20KW PCU (Invertors) at LINGSHED & DIPLING
- ii. 1Nos: 40KW PCU (Invertors) at BUKSHADHO.
- iii. 1Nos MCCB 100amps 4 Pole to Kharnak SPV
- iv. 50mtr 4 core 70 sqmm poly ethylene copper wire to LREDA office
- 1. The actual supply done may vary 30% of the estimate work/numbers above or lower subject to the site requirement and tender rates.

### PART - E TECHNICAL SPECIFICATIONS

**1. Invertors :** The following table gives a Broad Technical Specifications of the Solar Power Plant Power Conditioning Unit (Invertors):

General	Hybrid	(PCU)					
System Rating (KW)	5	10	15	20	25	30	40
Photovoltaic input							
MPPT Voltage Range/VOC	(165-265)/315 (330-480)/750						
(VDC) (V)					·		
Maximum Input Current (A)	42	69	52	70	87 10	)5 175	350
MPPT Base Charge							
Controller							
Switching Element & Type	IGBT D	Device MF	PPT with	PWM s	witching u	using SP.	ACE Vector
of Charger	Techno	logy					
Grid Input							
Input Supply	3Phase	4Wire/41	5VAC(+1	0%, -15%	6) 50HZ		
Phases/Nominal Voltage &							
Voltage Range Active							
filtering when load on							
mains (Load Harmonic							
corrections) with 100%							
Load							
THD/PF/Harmonic	<5%/>0	).9/up to 9	6%				
attenuation ratio							
Battery							
Battery Voltage			As per p				
attery Type SMF/VRLA/Wet Lead Acid/TGel/Li ion							
Output Inverter							
Switching element &	IGBT 3	2bit DSP (	Controlle	r with Spa	ace Vector	Technolo	gy
Control							
Waveform	415 VA	CL-L (240	VACL-N	)/(Pure sir	ne wave)		
Voltage Regulation/Output	+- 2% /3Phase 4wire/50Hz						
Phases/Freq(Hz)							
Load Power Factor	0.6 lag to 1 (Within KVA and KW rating)						
Output Voltage Distortion	< 2%						
with 100% Linear Load							
Overload at nominal output	125% /*	150%					
voltage for 10/1 minutes							
resp.							
Environment							
	-20 - 40	Deg Cels	ius				
Operating Temperature							
(Storage Temperature)							
	1						

Max Relative humidity @25Deg Celcius	Up to 95% (non Condensing)
Max Altitude above sea level	4000m (for Higher Altitude Complies with IEC/EN 62040-3)
Noise @ 1meter (dba+- 2dba)	<60dba
Cooling	Forced Air
Physical Characteristic	
Ingress Protection (IP) of Cabinet (Location)	IP20 Indoor (Free from corrosive gases conductive dust)
Cable Entry	Bottom – Front/RAL 7016
Free Standing Floor	
Mounting Modular structure	
Display & user Interface	
Protection	Under/Over voltage for input, Output, Array & Battery reverse polarity, Output overloaded, short circuit, Over temperature, Under Temperature, MCCB at input, Output, Array & Battery path, Surge protection for Grid and array, Wound Component OT; Inbuilt isolation transformer at inverter output
Display Parameters	Array/Battery/Grid- Voltage, Current, Power. Output-Voltage, Current, Inv. H/s Temp, Power Statics-Grid KWH, PV-KWH, O/P KWH, Battery Charging, Discharging
Indications (with audible alarm for all faults)	MPPT Charger ON/OFF, Battery on Float, Battery on Boost, Battery low, Battery Charging/discharging. Grid Switch ON, Inverter Switch ON, Inverter Switch N, Grid ON, Load ON, Inverter ON.
Audible Alarm /Data Log & Events Communication	For fault condition built in alarm log 240 numbers and data log 268 numbers (expandable with SD Card for lifetime data log ) : Ethernet Based(RJ 45/RS232/RMS with GPRS)

### PART – F

## **OTHER CONDITIONS**

#### 1 Warranty

- a. The bidder warrants that the Goods supplied under the contract are new, unused, of the most recent or current Improved and incorporate all recent improvements in design and materials unless provided otherwise in the contract. The bidder further warrants that the goods erected under this contract shall have no defect arising from design, materials or workmanship (except insofar as the design of material is required by the LREDA's specifications) or from any act or omission of the bidder, that may develop under normal use of the supplied Goods in the conditions obtaining in the country of final destination.
- b. This warranty shall remain valid as specified in Special conditions of contract after the goods, or any portion thereof as the case may be, have been supplied/constructed/fixed.
- c. PROJECT DIRECTOR, LREDA, LAHDC-Leh shall promptly notify the bidder in writing of any claims arising under this warranty.
- d. Upon receipt of such notice, the bidder shall, with all reasonable speed repairs or replace the defective Goods or parts thereof on his own expenses within the two years of warranty period.
- e. If bidder fails to remedy the defect(s) within a reasonable period, the PROJECT DIRECTOR, LREDA, LAHDC-Leh may proceed to take such remedial action as may be necessary, at the bidder's risk and expense and without prejudice to any other rights which the PROJECT DIRECTOR, LREDA, LAHDC-Leh may have against the bidder under the contract.

#### 2 Performance and Guarantee

- a. The Performance of the above work(s) would be checked and certified by representatives of LREDA on behalf of PROJECT DIRECTOR, LREDA, LAHDC-Leh and the beneficiary. A certificate of completion of work would be issued by PROJECT DIRECTOR, LREDA, and LAHDC-Leh for each Invertor.
- b. The certificate of completion of work would be signed by the beneficiary, the bidder and the LREDA representative after whom it would be handed over to the beneficiary.
- c. All Guarantee conditions would stand after the hand over.

#### 4. Payment terms

The payment to the Bidder shall be made as per schedule mentioned below:

- 100% payment of supply shall be paid after Supply and fixing of the complete items as mentioned in the Price Bid and shall be released against the production of a certificate of completion satisfaction by the beneficiary.
- Earnest Money shall be released after commissioning of the system
- Any price variation shall not be allowed.

#### 5. Duties and Taxes

The price quoted should include all taxes and duties, fixing, transportation and labour.

Sd/-

Project Director, LREDA/Chief Executive Officer LAHDC-Leh

#### OFFICE OF THE PROJECT DIRECTOR, LREDA / CHIEF EXECUTIVE OFFICER LADAKH AUTONOMOUS HILL DEVELOPMENT COUNCIL LEH

#### TENDER NOTICE NO: NIT No.13 OF 2022-23

WORK: "Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty"

# Volume –I

**Price-Bid** 

Name of Firm

.....

.....

Signature of Issuing Officer

.....

## PRICE SCHEDULE

**Name of work**- "Supply of PCU (Invertors) of various capacity & PCU PARTS/ SOLAR POWER PLANTS ITEMS at various sites of Leh District Union Territory of Ladakh with minimum 5 years of warranty"

S.NO	DESCRIPTION	SITE	UNIT RATE (INR)	NOS	TOTAL INR
1.	PCU (240 VDC, 20 Kw with built in charge controller, MPPT, 415 V AC 50 Hz, 25 KVA inverter and charger	4Nos at Lingshed		4	
2.	PCU (240 VDC, 20 Kw with built in charge controller, MPPT, 415 V AC 50 Hz, 25 KVA inverter and charger	Dipling		1	
3.	PCU (240 VDC, 40Kwp with built in charge controller, MPPT, 415 V AC 50 Hz, 36 Kva inverter and charger)	Bukshadho		1	
4.	1Nos MCCB 100amps 4 Pole to Kharnak SPV	Kharnak		1	
5.	50mtr 4 core 70 sqmm poly ethylene copper wire	LREDA office		1	
6.	TOTAL				

Note: The rate quoted must be inclusive of all taxes, labour, fixing & transportation including the non motorable site of dipling.

Total rate in (S.No 5) Total rates in words:

Signature of Bidder Seal

## THE ADMINISTRATION OF UNION TERRITORY OF LADAKH

#### OFFICE OF THE PROJECT DIRECTOR, LREDA / CHIEF EXECUTIVE OFFICER LADAKH RENEWABLE ENERGY DEVELOPMENT AGENCY (LREDA) LADAKH AUTONOMOUS HILL DEVELOPMENT COUNCIL LEH LADAKH

#### **Bid Security Declaration.**

I hereby submit a declaration that the bid submitted by the undersigned, on behalf of the bidder, (Name of the Bidder), either sole or in JV, shall not be withdrawn or modified during the period of validity i.e not less than 90 (Ninety) days from the bid due date. I, (Name of the bidder) also accept the fact that in case the bid is withdrawn or modified during the period of its validity or if we fail to sign the contract in case the work is awarded to us or we fail to submit a performance security before the deadline defined in clause of the NIT, then (Name of bidder) will be suspended for participation in the tendering process for the work of LREDA,PWD, CPWD, PDC/PDD I&FC, REW, PHE, MoRTH/NHAI/NHIDCL and works under centrally sponsored schemes for a period of one year from Bid due date of this work.

Ref:- (Name of the Work for which bid declaration is submitted) Date:-

(Signature of Authorised Signatory) (Official Seal)