

Bharat Heavy Electricals Ltd.,



: 0091-80-26989614 0091-80-26998972 0091-80-26998758

(A Government of India undertaking) **Electronics Division**

PB 2606, Mysore Road Bangalore- 560026, INDIA An ISO 9001, ISO 14001 & OHSAS 18001 COMPANY E-Mail: skbera@bhel.in pallavinigam@bhel.in rajivcg@bhel.in

TWO PART TENDER DOCUMENT FOR THIRD PARTY INSPECTION AND IEC CERTIFICATION FOR 1500V DC, 2.5 MW SOLAR POWER CONDITIONING

OPENING DATE: 01-02-2021

UNIT /PCU (SOLAR PV INVERTER)

All above terms and conditions are acceptable by the Bidder /Tenderer



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NOTICE INVITING TENDER

1. TENDER REFERENCE NO.	T&PD/COE/PCU/2500			
2. NAME OF THE WORK	THIRD PARTY INSPECTION AND IEC CERTIFICATION FOR 1500 V, 2.5 MW SOLAR POWER CONDITIONING UNIT /PCU (SOLAR PV INVERTER)			
3. DURATION OF CONTRACT	TILL SUCCESFUL COMPLETION OF TESTING AND RECEIPT OF ALL REQUIRED DELIVERABLES FROM THE CERTIFYING AGENCY			
4. LAST DATE AND TIME FOR THE RECEIPT OF COMPLETED TENDER	BEFORE 13:00 HRS ON 01-02-2021			
5. DATE AND TIME FOR TENDER OPENING	AT 13:30 HRS ON 01-02-2021			
6. PLACE OF SUBMISSION OF COMPLETED TENDER	TO BE DROPPED IN THE <u>FS & T TENDER BOX (BOX NO. 7)</u> KEPT IN THE RECEPTION AREA AT BHEL, ELECTRONICS DIVISION, MYSORE ROAD, BANGALORE – 560 026			

This tender document contains 20 (twenty) pages including Technical & Commercial Bid and Price Schedule Format (Price Bid), as follows:-

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Note: The bidder shall return the duly filled in Tender Documents after affixing signature on all pages.

All above terms and conditions are acceptable by the Bidder /Tenderer

NAME OF WORK: THIRD PARTY INSPECTION AND IEC CERTIFICATION FOR 1500V DC, 2.5 MW SOLAR POWER CONDITIONING UNIT /PCU (SOLAR PV INVERTER)

PART A: Technical & Commercial Bid

PART 1: GENERAL INSTRUCTIONS TO TENDERERS / BIDDERS

- 1. Sealed Tenders for the above work is hereby invited to carry out the testing for Solar Power conditioning unit (Solar PV Inverter) for 1500V DC, 2.5 MW, as per required standards as per PART 5: <u>Schedule of activities / Scope of work and submit test reports and Compliance Certificate for the product (issued as per IEC standards) indicating all the clauses under which the tests have been conducted.</u>
- **2.** Bidders are required to go through instructions carefully and complete all the formalities as required. In the event of furnishing false information / incomplete information, the offer shall be rejected. In case bidders require any clarification, they may contact the authority inviting the tender (mentioned at right hand top side of this page) for clarifications, before submitting their bids.
- **3.** The offer shall be submitted in two separate sealed envelopes: one envelope containing the Technical & Commercial Bid and the other containing the Price Bid. These two sealed envelopes should be placed inside another larger sealed envelope.
- 4. Bidders are required to submit the offer in two separate parts: (i) Techno- commercial Bid and (ii) Price Bid. Each bid is to be kept in separate envelope which should be properly sealed. The envelope for Techno-commercial bid (Page 1 to 17) should be super scribed as "Techno-commercial bid for Third Party Inspection and IEC Certification for 1500V DC, 2.5 MW Solar Power Conditioning Unit / PCU (Solar Inverter)". The technical & commercial bid /Un-priced bid should not include prices.

The envelope for Price bid (Pages: 18 – 20) shall be super scribed as "Price Bid for Third Party Inspection and IEC Certification for 1500V DC, 2.5 MW Solar Power Conditioning Unit / PCU (Solar Inverter)."

In both the envelopes Tender reference No., Date of Opening and From / To addresses are to be mentioned.

Both the above two sealed envelopes shall be kept inside another properly sealed envelope. This envelope shall be super scribed as "Offer for Third Party Inspection and IEC Certification for 1500V DC, 2.5 MW Solar Power Conditioning Unit / PCU (Solar Inverter)". Tender reference number, Date of opening, Full name and address of the tenderer shall also be mentioned on this cover.

- 5. Tenders should be addressed to <u>The SDGM (COE), COE Building Second Floor, Electronics Division, Bharat Heavy Electricals Limited, Mysore Road, Bangalore 560 026.</u> Sealed tender should be dropped in the FS&T tender box kept in the Reception area at BHEL Electronics Division, Mysore road, Bangalore-560 026, before **13.00 hrs. on 01-02-2021.**
- 6. The techno-commercial bid shall be opened at **13.30 hrs. on 01-02-2021** at Reception area / Finance department of BHEL, in the presence of bidders whosoever is present. No separate intimation will be given to bidders for techno-commercial bid opening. If in any case, the date of tender opening falls on Holiday, the tender will be opened on the next working day.
- 7. The tenders received after the specified time of their submission are treated as Late Tenders and shall not be considered.
- 8. The sealed price bids of those offers which are techno-commercially accepted / qualified shall be opened later. The bidders qualifying in techno-commercial bid will be intimated separately for participating in Price bid opening.
- 9. All erasures and over writing, cancellations and insertions should be duly signed by the tenderer concerned with proper indication of the name of the person signing & date.
- 10. Tenderers shall fill in all the required particulars in the Format for Technical & commercial terms (Pages 1 to 17) and Price Bid (Pages 18-20) provided for this purpose in the tender documents and also sign (with seal) on each and every page of the tender document before submitting tender.
- 11. Unit rates should be quoted in figures as well as in words in Indian Currency only, i.e. Rupees and Paisa in the attached **Price Bid** (Pages 18 20). GST shall be claimed separately and shall not be included in the basic rates quoted.
- 12. In case the rate quoted in figures differ from those quoted in words, the lower of the rates will be taken as the tendered rate and shall be binding on the tenderers.
- 13. (a) The rates quoted in the tender shall remain valid for a period of 'THREE MONTHS' from the date of opening of tender.
- (b) The Tenderer shall not increase their quoted rates, once the tenderer has submitted the quotation and during execution of the entire contract period in case his tender is accepted.
- 14. Conditional and unsigned tenders, tenders containing absurd rates and amounts, tenders which are incomplete or otherwise considered defective, tenders which are not in accordance with the tender conditions laid down by the Accepting Officer and tenders not submitted in the prescribed forms are liable to be rejected.
- 15. Tenders submitted by post should be sent by "Registered Post with Acknowledgement Due" / Courier service. These should be posted/sent with due consideration for any delay in postal/courier delivery. Tenders received after the due date and time of opening of tenders are liable to be rejected.

- 16. The Certifying Agency's responsibility under this contract shall commence from the date of submitting the Non-Disclosure Agreement and Indemnity bond to BHEL and receiving the necessary engineering documents from BHEL
- 17. THE BHARAT HEAVY ELECTRICALS LIMITED will not be bound by any power of Attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. They may however, recognize such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Certifying Agency concerned.
- 18. If the tenderer deliberately gives wrong information in his tender, BHEL reserve the right to reject such tender at any stage. Further the tender will be liable for any damage caused.
- 19. Words imparting the singular number shall also be deemed to include the plural number and vice-versa where the context so requires.
- 20. Certifying Agency shall produce necessary records, documents, explanation whenever he is called upon to by any Government agencies, VIGILANCE etc.
- 21. ARBITRATION: All disputes arising in connection with the contract shall be settled by mutual consultation. If no agreement is reached the dispute shall be settled in accordance with the provisions of the Arbitration & Conciliation Act, 1996 and the rules made there under. The dispute shall be referred for arbitration to any arbitrator to be appointed by the Head of BHEL-EDN, Bangalore. The award of the Arbitrator shall be final and binding on both the parties. The venue of the arbitration shall be Bangalore in India. The award to be given by the arbitration shall be a speaking award. All questions, disputes, differences arising under, out of or in connection with this contract shall be to the exclusive jurisdiction of Bangalore Courts.
- 22. The BHARAT HEAVY ELECTRICALS LIMITED reserves the right to reject any or all the tenders received without assigning any reason thereof.

PART 2: UNIT HEALTH, SAFETY & ENVIRONMENTAL POLICY

BHARAT HEAVY ELECTRICALS LIMITED

ELECTRONICS DIVISION & ELECTRONICS SYSTEMS DIVISION, BANGALORE

The Management is committed to be an environmentally sound company in its activities, products, services and to provide safe and healthy working environment covering its employees, Certifying Agency s, contract labors, trainees, suppliers, customers and all interested parties as an integral part of business performance through:

- **C**ompliance with applicable Legal and other requirements related to Occupational Health, Safety & Environment.
- **S**etting objectives and targets to eliminate / control / minimize environmental pollution, risks due to Occupational Health and Safety Hazards for preventing injury and ill health and reviewing the objectives and targets to have continual improvement in HSE performance.
- **Promotion** of activities for conservation of resources by environmental management with focus on electrical energy and chemicals.
- **C**ommunication of HSE policy to employees, customers, suppliers, Certifying Agency s and all interested parties and enhancement of Environmental, occupational Health and Safety management systems by pro-active measures.
- **★** Commitment for regular evaluation and pro-active measures for prevention & control of environmental pollution / risks due to incidents & occupational diseases.
- ★ Appropriate training of employees, customers, suppliers, Certifying Agency s and all interested parties on Health, Safety & Environmental (HSE) aspects.
- **F**ormulation and maintenance of HSE Management Programs for continual improvement.
- **P**eriodic review & audit of HSE Management System to ensure its continuing Suitability, adequacy and effectiveness.
- **C**o-operation with concerned agencies / regulatory bodies engaged in HSE activities.

All above terms and conditions are acceptable by the Bidder /Tenderer

PART 3: BIDDER INFORMATION

SI. No.	Description	Details
1	Name of the Certifying Agency with Complete Postal Address	
2.	E-Mail ID Telephone Number Mobile Number	
3	Nature of Certifying Agency (Private Ltd or Public Ltd)	
4	Name of the contact person of the Certifying Agency with telephone number.	

All above terms and conditions are acceptable by the Bidder /Tenderer

PART 4: PRE-QUALIFICATION CRITERIA FOR TECHNO-COMMERCIAL ACCEPTANCE OF BID

Sl No	Particulars	To be filled by Bidder		
1	At least one completed project of the organization (bidder/certifying agency) for conducting tests as per IEC standards for minimum 500 kW rating of grid connected solar inverters for the scope of work as defined in this tender and certificate issued by the agency against the completed project to be submitted along with the offer as part of techno-commercial bid	Enclosed / Not Enclosed		
2	There should not be any fixed validity date for the test reports and Compliance certificate or Certificate of Verification of conformity (issued as per IEC standards). The validity of test reports & certificate should be same as the validity of the current edition of the referred IEC standard. There should not be any Factory Inspections involved after the completion of testing process and there should not be any additional periodic fee for keeping the test reports and Certificate of Verification of conformity, valid.	ACCEPTED / NOT ACCEPTED		
3	The certifying agency must be accredited by NABL.			
4	The tests and witness by certifying agency will be done at BHEL works at Bangalore except EMI EMC tests, IP test and environmental tests.			
5	The certifying agency will quote for all the tests as mentioned in Part 5 (clause 2) of this document.			
6	EM Compatibility (EMC) tests as per IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-6, IEC 61000-4-8, CISPR 11 (Radiated Emission), Environmental Test as per IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14 & IEC 60068-2-30 and IP Test as per IEC 60259 will be done at third party laboratories / at the test facility of the certifying agency. The place of testing should be within Bangalore. These labs are to be arranged by the certification agency. Price to be quoted by including the time required for completion of testing as well as the time required for panel shifting to lab or outside from lab, making test set up etc. The certification agency should consider sufficient time (while			

	quoting) that will be required for successfully completing the tests in the respective labs.	
7	For EMI EMC test, environmental test and IP test, arrangements of crane, fork lift, unloading of panel and shifting inside test lab need to be arranged by the certification agency. The shipping of the equipment (EUT) from BHEL, arrangement of Load and DC source are under the responsibility of BHEL. All other charges for conducting the testing at third party laboratories will be borne by the Certification agency.	
8	The environmental tests will be carried on only 1 IGBT power module, control modules and power supply module and NOT the whole solar inverter panel.	
9	The EMI EMC test will be carried out on the solar inverter on resistive load test set up. The available resistive load will be arranged by BHEL.	
10	MPPT Test as per EN50530 will be done at BHEL test bed. MPPT simulator of proper rating has to be arranged by the certification agency. The rating of MPPT simulator available should be intimated to BHEL.	
11	Solar array simulator for MPPT test as per EN50530 and temperature recording system for heat run test will be provided by the certifying agency at BHEL works for conducting the tests.	
12	BHEL will provide suitable multimeter, oscilloscopes, rogoswki coils, voltage probes, Dielectric tester and DC current source for earth bonding test for the testing. Remaining instruments have to be provided by the certifying agency.	
13	GST Number should be present	Document enclosed / Not enclosed
14	PAN Number as per Income tax act should be present	Document enclosed / Not enclosed

Note: If any of the above mentioned criteria is not met or not accepted, then the techno-commercial bid will be rejected and price bid will not be opened.

PART 5: SCHEDULE OF ACTIVITIES / SCOPE OF WORK

1. General Product Information:

The equipment specified here is a Solar Power Conditioning Unit (Solar PCU) to convert DC power (generated by a photo-voltaic array) to AC power (to feed a power grid system). The model of the PCU is capable of delivering 2.5 MW power.

DC Voltage: 1500 V DC

AC Grid Voltage: 630 V +/- 10% Line to Line RMS, 3 phase 3 wire system

Panel Dimension (LxDxH): 4252 mm x 1250 mm x 2400 mm. Weight (approx.): 5000 kgs

2. Scope of the Testing:

The Power conditioner/Inverter must conform to the latest edition of IEC/equivalent standards as specified below:

- 1. Electrical safety as per IEC 62109-1 and IEC 62109-2
- 2. Efficiency Measurement as per IEC 61683
- 3. MPPT Efficiency Test as EN50530
- 4. EMC tests as per IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-6, IEC 61000-4-8 and CISPR 11 (Radiated Emission)
- 5. Environmental Tests as per IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14 and IEC 60068-2-30
- 6. IP test as per IEC 60529
- 7. Harmonics as per IEEE 519

The specification calls for witnessing the testing for Solar Power conditioning unit (Solar PV Inverter) for 2.5 MW rating, as per required IEC standards as above and submit test reports and Compliance Certificate for the product (issued as per IEC standards) indicating all the clauses under which the tests have been conducted.

- 3. The agency has to inform BHEL the following details in their technical offer, along with the technical commercial bid, in response to the RFQ / Tender. The details are as follows:
- i)All required test facilities required for the above testing.
- ii)All the test equipments that has to be provided by BHEL during the entire testing process and whose calibration certificates are required by the agency during testing process. The offer should also clearly indicate all the test / measurement equipments that will be provided by the agency during the testing process. If the same is not mentioned, BHEL will presume that the relevant test instruments will be arranged by the certifying agency.
- 4. After placement of order on the agency, the agency has to sign a Non Disclosure Agreement (NDA), Refer Part 7 and Indemnity Bond as per format at Part 8, within a All above terms and conditions are acceptable by

the Bidder /Tenderer

week after award of work order. Subsequently, the agency will be issued the required documents.

- 5. Documents to be supplied by BHEL prior to starting of testing:
 - 1. Single Line Diagram
 - 2. Data Sheet
 - 3. Equipment Drawing / Product Block diagram
 - 4. PCB Layout diagrams (Gerber files, BOM for PCB)
 - 5. Bill of Material
 - 6. Calibration certificates of all test equipments

In case any other document in addition to above is required, the same to be mentioned in technical offer.

6. General:

- 6.1 CONFIDENTIALITY: Certifying agency shall, at all times, undertake to maintain complete confidentiality of all data, information, software, drawings & documents, etc. belonging to BHEL and also of the Systems, procedures, reports, input documents, manuals, results and any other company documents discussed and/or finalized during the course of execution of the order/contract. A "Third Party Certifying Agency Non-disclosure agreement" has to be submitted by the successful certifying agency, after award of work, as per the format at Part 7.
- 6.2. FORCE MAJEURE: Certifying agency shall not be responsible for delay in delivery resulting from acts/events beyond his control provided notice of the happening of any such act/event is given by the Certifying agency to the BHEL within 15 days from the date of its occurrence. Such acts/events shall include but not be limited to acts of God, war, floods, earthquakes, strikes, lockouts, epidemics, riots, fire or Governmental regulations superimposed after the date of order/contract.
- 6.3. SUB-CONTRACTING: Order/contract or any part thereof shall not be sub-contracted, assigned or otherwise transferred without prior written consent of BHEL which will not be unreasonably withheld.
- 6.4. LIQUIDATED DAMAGES (LD): LD penalty will be applicable @ 0.5% (half percent) per week or part thereof, limited to a maximum of 5% (five percent) of the cost of the particular phase for which the delivery is delayed, in case the certifying agencies fails to deliver the report/other deliverables as required by BHEL within the time period, due to reasons for which the agency is solely responsible.
- 6.5. Safety: The certifying agency shall ensure the safety of their personnel and they must be provided with necessary safety equipment to carry out this type of work. The

All above terms and conditions are acceptable by

the Bidder /Tenderer

Certifying Agency shall adhere to BHEL's Health, Safety & Environment Policy. (Refer Part 2: UNIT HEALTH, SAFETY & ENVIRONMENTAL POLICY)

- 6.6. All service personnel of the certifying agency shall abide by BHEL security rules in obtaining pass for personnel and material / tools brought by the service personnel. Required tools, instruments etc., for this work are to be brought by the certifying agency. Tools and instruments brought inside BHEL EDN premises shall be properly entered at security check post to enable the certifying agency to take them back after use.
- 6.7. Any damage caused to BHEL machinery or any other assets, other than the Equipment under test and the related measuring instruments, inside BHEL EDN premises by the staff of the certifying agency, shall be made good or replaced at the certifying agency's cost. The competent authority may also impose the penalty if the services are not found up to the mark. No claim from the certifying agency on this account shall be entertained.
- 6.8. The certifying agency shall comply with all statutory requirements such as Employees State Insurance & Provident Fund and other labor laws as applicable. However incase ESI / PF clause is not applicable as statutory regulation, the certifying agency shall take necessary Medical insurance policies covering third party certifying agencies risks to their employees in lieu of ESI. The certifying agency shall indemnify BHEL for all liabilities under insurance & labor laws and all liabilities to third party certifying agencies due to their omission and commission on Rs.500/- stamp paper as described in Indemnity Bond format at Part 8.

PART 6: TECHNICAL & COMMERCIAL TERMS COMPLIANCE STATEMENT

Sl	Description	Agreed /	Not Agreed
No		Yes	/ No
1.	Scope of Work: The tenderer has understood the scope of work as mentioned in Part 5 of the NIT and their offer is in line with the schedule of activities / scope of work as required by BHEL.		
2.	The period of contract is till all the compliance certificate and test reports for the required IEC standards are delivered to BHEL after successfully completing all required tests. However BHEL reserves the right to terminate the contract at any time if services rendered are not satisfactory.		
3.	The tenderer has agreed to all Terms & Conditions given in the tender.		
4.	Validity of the Offer: Validity of offer is 3 (three) months from the date of opening of techno-commercial bid.		
5.	Offer will be submitted in two parts: Techno-commercial bid and Price bid, in two separate sealed envelopes. The two sealed envelopes will be put inside another larger sealed envelope and the same will be sent to BHEL by "Registered Post With acknowledgement due" / Courier service.		
6.	The certifying agency has indicated (in the technical offer) all the test equipments that has to be provided by BHEL during the entire testing process and whose calibration certificates are required by the agency during testing process. The technical offer also clearly indicates all the test / measurement equipments that will be provided by the agency during the testing process. If the same is not mentioned, BHEL will presume that the relevant test instruments will be arranged by the certifying agency.		
7.	The certifying agency shall comply with all statutory requirements such as Employees State Insurance & Provident Fund and other labour laws as applicable. However in case ESI / PF clause is not applicable as statutory regulation, the certifying agency shall take necessary Medical insurance policies covering third party certifying agencies risks to their employees in lieu of ESI.		

8.	The certifying agency shall indemnify BHEL for all liabilities under insurance & labour laws and all liabilities to third party certifying agencies due to their omission and commission on Rs. 500/- stamp paper as described in Indemnity Bond format at Part 8, within a week after award of work order.	
9.	The agency has to submit the test reports against each of the relevant IEC standards and then submit compliance certificate for the product indicating all the clauses under which the tests have been conducted.	
10.	The agency has read and understood all the terms & conditions mentioned in Part B (Price Bid) of this tender and the same is acceptable to the agency.	
11.	Payment to be released within 45 days of BHEL acceptance of compliance certificate and test reports through EFT only.	
12.	The rates of each phases (A,B,C,D,E F & G) are inclusive of all components like travelling, lodging, etc and BHEL will remit only the amount of T with GST extra as per payment terms. Certifying agency will mention BHEL Karnataka's GST no (29AAACB4146P1ZB) in their invoice for billing purposes.	
13.	Certifying Agency will submit "Third Party Certifying Agency Non-disclosure agreement" as per the format at Part 7, within a week after award of work order.	
14.	Whether the tenderer has enclosed all the required documents as required in Part 4: Pre-Qualification criteria	

PART 7: THIRD PARTY CERTIFYING AGENCIES NON-DISCLOSURE AGREEMENT (to be submitted by agency after award of work and before release of documents by BHEL)

I,, on behalf of the (Name of Company) acknowledge that the information received or generated, directly or indirectly, while working with BHEL on contract is confidential and that the nature of the business of the BHEL is such that the following conditions are reasonable, and therefore:
I warrant and agree as follows:
I, or any other personnel employed or engaged by our company, agree not to disclose directly or indirectly, any information related to the BHEL. Without restricting the generality of the foregoing, it is agreed that we will not disclose such information consisting but not necessarily limited to:
Technical information: Methods, drawings, processes, formulae, compositions, systems techniques, inventions, computer programs/data/configuration and research projects.
Business information: Customer lists, project schedules, pricing data, estimates, financia or marketing data,
On conclusion of contract, I, or any other personnel employed or engaged by our company shall return to BHEL all documents and property of BHEL, including but not necessarily limited to: drawings, blueprints, reports, manuals, computer programs/data/configuration, and all other materials and all copies thereof relating in any way to BHEL's business, or in any way obtained by me during the course of contract. Further agree that I, or any others employed or engaged by our company shall not retain copies, notes or abstracts of the foregoing.
This obligation of confidence shall continue after the conclusion of the contract also.
I acknowledge that the aforesaid restrictions are necessary and fundamental to the business of the BHEL, and are reasonable given the nature of the business carried on by the BHEL. I agree that this agreement shall be governed by and construed in accordance with the laws of country.
I enter into this agreement totally voluntarily, with full knowledge of its meaning, and without duress. Dated at, this day of, 20
Name Company Signature

PART 8. FORMAT FOR INDEMNITY BOND

(To be executed on Rs. 500/- Non judicial Stamp paper after award of work)

This deed of indemnity made on this day of 2015 by M/s
indemnifier, a company registered under the Companies Act, 1956 and having its registered office
at hereinafter referred to as "Certifying Agency" represented by Sri
S/o SriS/o Sriagedagedagedagedaged
years and R/onow working as, which expression unless repugnant to
the context hereof shall mean and include its successor, assignees and administrator.

IN FAVOUR OF

M/s. Bharat Heavy Electricals Limited, the indemnified, a company registered under the Companies act, 1956 and having its registered office at BHEL House, Siri Fort, New Delhi-110049 and its unit M/s. BHEL-EDN, PB No.2026, Mysore Road, Bangalore-560026, hereinafter referred to as **"BHEL"** which expression unless repugnant to the context hereof shall mean and include its successor, assignees and administrator.

Whereas the BHEL has awarded to the Certifying Agency herein a contract for Third Party Inspection & IEC Certification for Solar PCU (PV Inverter) on terms and conditions set out inter alia in the Tender document/contract and Contract No......

And whereas, clause of the above mentioned contract / SPO provides for indemnifying BHEL for all liabilities under insurance & labour laws;

And further the Certifying Agency has agreed for indemnifying BHEL against all liabilities to third party due to their omission and commission;

The Certifying Agency in pursuance of such contract execute herein an indemnity bond in favor of the Company, for any loss or damage or delay, that may be caused on account of any litigation or any legal proceedings against the Company, as well as for all the claims and actions including legal costs arising there from.

NOW THEREFORE, THIS INDENTURE WITNESSES AS UNDER:

- 1. That the Certifying Agency hereby represents and warrants as below:
 - a. The Certifying Agency has complied to all the requirements of law, statutory rules and tender conditions
 - b. The Certifying Agency has covered its employees entering BHEL premises for carrying out necessary works/ repairs/ maintenance including preventive maintenance, adequately under necessary insurance cover or legal protection, in order to save them from any mishaps within premises of BHEL
 - c. No claim would be caused to be made before any court of law, tribunal or any forum whatsoever with respect to workmen's compensation or any other compensation or statutory claim for contributions, claims, damages etc in which BHEL can be made a party
 - 2. In the event any representation as above is found to be materially untrue, the Certifying Agency shall promptly rectify the error and bear the costs involved in providing such a remedy. The Certifying Agency shall hold the Company harmless from all the costs or expenses including reasonable attorney's fees and disbursements incurred in this regard.

All above terms and conditions are acceptable by the Bidder /Tenderer

- 3. Notwithstanding anything to the contrary contained in this Indemnity, the Certifying Agency shall be responsible for the Company's losses, consequential damages or any other claims arising out of any third party claim due to any commission or omission of the Certifying Agency.
- 4. The Certifying Agency shall defend or settle at its own cost and expense any suit or action brought against the Company for *inter alia* any fine, contribution or other amounts as may be claimed by any statutory authority or on account of any injury suffered by any of the employees the Certifying Agency may employ in the premises of BHEL.
- 5. The Certifying Agency jointly and severally, shall indemnify and hold harmless the Company from and against all damages and cost adjudged or decreed against, and actually paid by, the Company in any such suit or action as a result of any lapse on the part of the Certifying Agency in the matter of obeying the terms of this contract.
- 6. The Certifying Agency shall notify the Company in writing of any claim or suit with respect to this and shall have full authority to defend or settle the claim or suit, provided, however that no settlement of any claim or suit whatsoever may be made without the Company's prior written concurrence if such a settlement would or may in the opinion of the Company abridge any right of the Company not included in the foregoing indemnity.
- 7. That in pursuance of the above said Tender Document / SPO, the Certifying Agency hereby covenants with the Company, that, the Certifying Agency will at all times here after indemnify and keep indemnified, the Company against all claims, demands, actions, proceedings, loses, damages, costs, charges and expenses which may be brought against the Company or which the Company may or may have to incur or may have to suffer due to direct or indirect, actions or inaction of the Certifying Agency.

 In witness whereof, the Certifying Agency is authorized to sign this indemnity bond and has put their hands on this indemnity bond, on the date, month and year first mentioned above in the presence of the following witnesses.

WITNESSES:		Certifying Agency		
1.		certifying rigericy		
2.				
Place:	Date:			

NAME OF WORK: THIRD PARTY INSPECTION AND IEC CERTIFICATION FOR 1500 V DC, 2.5 MW SOLAR PCU

PART B: PRICE SCHEDULE FORMAT (PRICE BID)

The agency must submit their price bid in the following format only. Bidder has to quote for the total work.

S1 No	Test Description	Amount in Rupees (in figures), excluding GST	Amount in Rupees (in words)
1	Electrical Safety as per IEC 62109-1 and IEC 62109-2	A	
2	Efficiency Measurement as per IEC 61683	В	
3	MPPT Efficiency Test as EN50530	С	
4	EMC tests as per IEC 61000-4-2, IEC 61000- 4-3, IEC 61000-4-4, IEC 61000-4-6,IEC 61000-4- 8 and CISPR 11 (Radiated Emission)	D	
5	Environmental Tests as per IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14 and IEC 60068-2-30	Е	
6	IP test as per IEC 60529	F	
7	Harmonics as per IEEE 519	G	
8	TOTAL COST	T = A+B+C+D+E+F+G	

GST: Please mention the applicable rate of GST ->

Please mention BHEL Karnataka's GST no (29AAACB4146P1ZB) in your invoice for billing purposes

All above terms and conditions are acceptable by the Bidder /Tenderer

SPECIAL CONDITIONS TO BE TAKEN CARE OF BY THE CERTIFYING AGENCIES DURING QUOTING THEIR PRICE. THESE TERMS & CONDITIONS WILL ALSO FORM A PART OF CONTRACT:

- 1. The rates of each tests (A,B,C,D,E,F & G) quoted should be inclusive of all components like travelling, lodging, number of days of witness testing etc that will be required till successful completion of all tests and BHEL will remit the total cost of testing (T) with GST extra as per payment terms.
- 2. The rates quoted will remain firm till end of contract and no price variation will be allowed.
- 3. Lowest Bidder (L-1 Bidder) will be evaluated on the basis of minimum value of T (TOTAL COST OF TESTING).
- 4. BHEL will submit all the required technical documents to the certification agency after signing of Non-Disclosure Agreement subsequent to placement of Order. Non-Disclosure Agreement to be submitted within 1 week after award of work order.
- 5. Electrical Safety tests as per IEC 62109-1 & IEC 62109-2, Efficiency Test as per IEC 61683 and IEEE 519 (Harmonics) will be done at BHEL test bed.
- 6. MPPT Test as per EN50530 will be done at BHEL test bed. MPPT simulator of proper rating has to be arranged by the certification agency. The rating of MPPT simulator available should be intimated to BHEL.
- 7. Solar array simulator for MPPT test as per EN50530 and temperature recording system for heat run test will be provided by the certifying agency at BHEL works for conducting the tests.
- 8. EM Compatibility (EMC) tests as per IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-6, IEC 61000-4-8, CISPR 11 (Radiated Emission), Environmental Test as per IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14 & IEC 60068-2-30 and IP Test as per IEC 60259 will be done at third party laboratories / at the test facility of the certifying agency. The place of testing should be within Bangalore. These labs are to be arranged by the certification agency. Price to be quoted by including the time required for completion of testing as well as the time required for panel shifting inside lab, making test set up etc. The certification agency should consider sufficient time (while quoting) that will be required for successfully completing the tests in the respective labs.

For EMI EMC test, environmental test and IP test, arrangements of crane, fork lift, unloading of panel and shifting inside test lab need to be arranged by the certification agency. The shipping of the equipment (EUT) from BHEL, arrangement of Load and DC source are under the responsibility of BHEL. All other charges for conducting the testing at third party laboratories will be borne by the Certification agency.

The EMI EMC test will be carried out on the solar inverter on resistive load test set up. The available resistive load will be arranged by BHEL.

The environmental tests will be carried on only 1 IGBT power module, control modules and power supply module and NOT the whole solar inverter panel.

- 9. The agency will have to visit BHEL EDN for witnessing the tests within three working days from the date of intimation of BHEL.
- 10. The L-1 certification agency will have to submit all the test reports and compliance certificate within 2 weeks of completion of all tests.
- 11. Payment will be made by BHEL through EFT only, after 45 days of receipt of all the test reports and Compliance Certificate.