



**Telangana State Renewable Energy Development Corporation Ltd**  
Tender Notice. No. TSREDCO/SE/SPV/UPG- ALLAPUR C LUSTER/2021-22

**(e-Procurement Tender Notice)**

**TENDER SCHEDULE**

**FOR**

**UP-GRADATION /CONVERSION OF ALREADY INSTALLED OFF GRID SOLAR SYSTEMS TO ON  
GRID ROOF TOP SOLAR PHOTO VOLTAIC HYBRID POWER PLANTS AT VARIOUS SCHOOLS OF  
ALLAPUR CLUSTERS IN VIKARABAD DISTRICT IN TELANGANA STATE**

**Tender Notice No:- TSREDCO/SE/SPV/UPG\_Allapur Cluster/2021-22,Dated. 04.08.2021**

**CLOSING DATE : 23.08.2021 At 5.00 PM**



**TELANGANA STATE RENEWABLE ENERGY DEVELOPMENT CORPORATION LTD  
(TSREDCO)**

**Corporate Office: D. No. 6-2-910, Visvesvaraya Bhavan,  
The Institution of Engineers Building, Khairatabad, Hyderabad - 500 004.  
Telangana State, India**

**PHONE: 040-23201502, 23201503, FAX : 040-23201504**

**E-mail : [info@tsredco.telangana.gov.in](mailto:info@tsredco.telangana.gov.in), [se@tsredco.telangana.gov.in](mailto:se@tsredco.telangana.gov.in)**

**Web site: <https://tsredco.telangana.gov.in>**



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**Website advertisement**



**TELANGANA STATE RENEWABLE ENERGY DEVELOPMENT  
CORPORATION LTD - (TSREDCO)**

Corporate Office: D. No. 6-2-910, Visvesvaraya Bhavan, The Institution of Engineers Building,  
Khairatabad, Hyderabad, 500 004. Telangana State PHONE: 040-23201502, 23201503, FAX :  
040-23201504

Online tenders are hereby invited from interested and eligible bidders for “ **Up-gradation / conversion of already installed off grid solar system to hybrid on grid roof top solar photo voltaic Hybrid power plant at Various Schools of Allapur clusters in Vikarabad District in Telangana State**”. Interested bidders can download the bids online from 05.08.2021 and submit the same, from 05.08.2021 to 23.08.2021 till 03:00PM through [www.tender.telangana.gov.in](http://www.tender.telangana.gov.in). For further details please visit our website: <https://tsredco.telangana.gov.in>

**Date: 05.08.2021**

**VC & MD,  
TS REDCO**



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**SECTION - I**

**INVITATION FOR BIDS (IFB)**



**SECTION - I**  
**INVITATION FOR BIDS (IFB)**

- 1. Name of Work:** Up-gradation / conversion of already installed off grid solar system to hybrid on grid roof top solar photo voltaic Hybrid power plant at Various Schools of Allapur clusters in Vikarabad District in Telangana State.

**Bid Document No: TSREDCO/SE/SPV/UPG-Allapur Cluster/2021-22 Date.04.08.2021**

- 2. Background:** Government of Telangana through G.O.MS.No.25, Dated. 03.09.2015 nominated Telangana State Renewable Energy Development Corporation Limited as Nodal Agency for implementation of New & Renewable Energy Programmes in the state of Telangana.

On behalf of consumers under this scheme therein, TSREDCO is inviting e-bids from interested bidders for Up-gradation / conversion of already installed off grid solar system to hybrid on grid roof top solar photo voltaic Hybrid power plant at Various Schools of Allapur clusters in Vikarabad District in Telangana State. Any amendment(s)/ corrigendum/clarification(s) with respect to this Tender shall be uploaded on the e-Procurement website only. The bidders should keep themselves updated by regularly visiting the Telangana E-Procurement website and TSREDCO website for any amendment/ corrigendum/ clarification in regard to this Tender.

- 3. OVERVIEW OF THE TENDER BID:-**

The successful Bidders selected by TSREDCO based on this tender bid shall set up of Up-gradation / conversion of already installed off grid solar system to hybrid on grid roof top solar photo voltaic Hybrid power plant at Various Schools of Allapur clusters in Vikarabad District in Telangana State.

- 4. SELECTION TECHNOLOGY & ELIGIBLE PROJECTS UNDER THIS TENDER BID**

The Projects to be selected under this bid are of 1kWp and 2kWp Solar PV Projects Installed at Various Locations of Allapur cluster in Vikarabad District of Telangana State under Rurban Scheme. The Projects provide for deployment of Solar PV Technology. However, the selection of projects would be technology agnostic within the technology mentioned above. Only commercially established and operational technologies can be



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used, to minimize the technology risk and to achieve the timely commissioning of the Projects.

5. TSREDCO shall conduct negotiations separately for the projects, if required or as per provisions of tender bid document.
6. TSREDCO reserves the right to cancel/withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.

**DISCLAIMER:**

1. Telangana State Renewable Energy Development Corporation Limited (TSREDCO) reserves the right to modify, amend or supplement this document including all formats and Annexures.
2. While this document has been prepared in good faith, neither TSREDCO nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this tender document, even if any loss or damage is caused by any act or omission on their part.



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**SECTION - II**

**INSTRUCTIONS TO THE BIDDER (ITB) AND GENERAL CONDITIONS**

**SECTION-II**



**Instructions to the Bidder (ITB) and General Conditions**

**2.0 INTRODUCTION:**

- The Work will be allotted to L1 Bidder.

**2.1 BID INFORMATION SHEET**

The brief details of the tender bid are as under:

Bid Document No.	TSREDCO/SE/SPV/UPG-Allapur Cluster/2021-22, Dt: 04/08/2021
Bid Document fee (Non refundable)	Rs.11,800/- incl. 18% GST o be paid Online from any Scheduled Bank to M/s TSREDCO, Account no: 30242010095314, Canara Bank, Mukramjahi Raod, Hyderabad. The copy of acknowledgement is to be submitted to TSREDCO, and same is to be uploaded in e-tender portal.
Bid Security Deposit	Bid Bond (BID SECURITY) for Rs.75,000.00 (Seventy-Five thousand only) to be paid Online from any Scheduled Bank to M/s TSREDCO, Account no: 30242010095314, Canara Bank, Mukramjahi Road, Hyderabad. The copy of acknowledgement is to be submitted to TSREDCO (or) BG in favor of TSREDCO. Firms claiming Exemptions for BID SECURITY DEPOSIT shall submit Certificate from NSIC/ MSME etc.,
Performance security value	At the time of allocation of projects, the bidder shall submit Performance Guarantee @ 10% on the total project cost with quoted price. This Performance Guarantee amount shall be paid Online from any Scheduled Bank to M/s TSREDCO, Account no: 30242010095314, Canara Bank, Mukramjahi Road, Hyderabad. The copy of acknowledgement is to be submitted to TSREDCO. Performance Guarantee amount shall be retained for a period of sixty six months (5.5Years). No interest shall be paid by TSREDCO on the amount of Performance Guarantee deposit.
Minimum Eligibility Criteria	Valid Registered Suppliers with TSREDCO with requisite experience of at least minimum 40KWp cumulative



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	capacity in field of OFF grid and Grid Connected Solar PV systems installed at government buildings in any one (1) FY from the last 3 Years (i.e. FY 2018-19, 2019-20 and 2020-21)
Minimum Eligibility Financial Criteria	The firms are having the Turnover not less than 1Cr, in any one financial year during the last 3 financial years.
Bid Documents Downloading Start date	<b>05.08.2021</b>
Bid Document Downloading End Date	<b>23.08.2021 till 02.00 PM</b>
Last date for uploading of online documents	<b>23.08.2021 till 03.00 PM</b>
Last date for submission of Hard copies of documents uploaded online	<b>24.08.2021 till 05.00 PM</b> at D. No. 6-2-910, Visvesvaraya Bhavan, The Institution of Engineers Building, Khairatabad, Hyderabad, 500 004. Telangana State, India
Pre-qualification & Technical Bid opening date/time	<b>25.08.2021 at 11:00 AM.</b>
Price Bid opening date/time	<b>27.08.2021 at 03:00 PM</b>
Tender Bid Validity	90 days from the date of Opening
Contact person	General Manager (OR) Project Director (Solar), TSREDCO, Hyderabad
Tender to be addressed to	<b>Vice Chairman &amp; Managing Director</b> <b>Telangana State Renewable Energy Development Corporation Ltd (TSREDCO),</b> D. No. 6-2-910, Visvesvaraya Bhavan, 2 <sup>nd</sup> floor, The Institution of Engineers Building, Khairatabad, Hyderabad - 500 004. Telangana State, India Ph: 040 - 23201502, 23201503./ Fax: 040 - 23201504 Email: <a href="mailto:se@tsredco.telangana.gov.in">se@tsredco.telangana.gov.in</a>





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**Important Note:**

Bidder shall submit bid proposal along with Bid Document fee and BID SECURITY DEPOSIT, complete in all respect as per the Bid Information Sheet. Technical bids will be opened in the presence of authorized representatives of bidders who wish to be present.

TSREDCO have right to reject the bidding process at any stage or right to cancel the tender without mentioning any reason. In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.

Bid documents which include Eligibility criteria, “Technical Specifications”, various conditions of contract, formats, etc. can be downloaded from Telangana e-procurement website <https://tender.telangana.gov.in/>.

Any amendment(s)/corrigendum/clarifications with respect to this Bid will be uploaded on <https://tender.telangana.gov.in/> website and TSREDCO website [tsredco.telangana.gov.in](https://tsredco.telangana.gov.in) only. The Bidder should regularly follow up for any Amendment/Corrigendum/Clarification on the above website. No separate notifications will be issued for such notices/ amendments/ clarification etc. in the print media or individually.

1. Bids not accompanying the Bidding Document Cost and BID SECURITY DEPOSIT, or those accompanied by these instruments of inadequate value, shall not be entertained and in such cases, the bids shall not be opened. The Bidding Document Cost has to be paid through online mode necessarily, and submit the copy of acknowledgement along with Bid Document.

The BID SECURITY DEPOSIT should be in the form of online mode to TSREDCO account with Account no: 30242010095314, Canara Bank, Hyderabad. The validity of the BID SECURITY DEPOSIT shall be as per the Bid information sheet.

The details of the instruments of Bidding Document Cost and the BID SECURITY DEPOSIT (to be paid online) have to be entered online in relevant fields/columns of the module while submitting the e-bid. It must be ensured by the bidder that the original instruments towards Bidding Document Cost and BID SECURITY DEPOSIT are received by TSREDCO before opening time of the Technical bids for verification of the details of the same as given online by the bidder. Failure to comply with this would render the bid liable for rejection and the bid will not be opened online. TSREDCO will not be responsible for any delay, loss or non-receipt of Bidding Document Cost or BID SECURITY DEPOSIT sent by post/courier.



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Any relaxation/exemption sought by bidders shall only be considered in accordance with relevant clauses Section-II (ITB) regarding submission/payment of BID SECURITY DEPOSIT and Bidding Document Cost and shall be subject to fulfillment of conditions defined in the said clauses. Since all the conditions explained in the said clauses for seeking exemption from submission of Bidding Document Cost and BID SECURITY DEPOSIT are self-explanatory, bidders should ascertain about their fulfillment of all conditions and submit their bid accordingly. If at any stage, it is found that false information is furnished or non-compliance of any of the conditions defined at the said clauses, the bid/offer shall be considered as non-responsive and would not be considered for further evaluation. Bidder seeking exemption from submission of the Bidding Document Cost and the BID SECURITY DEPOSIT has to mandatorily submit/upload the scanned copy of their valid original registration certificate(s) as asked for, in the relevant clause along with other relevant documents as part of their online bid.

2. TSREDCO reserves the right to cancel / withdraw the tender without assigning any reason whatsoever and in such a case, no bidder / intending bidder shall have any claim arising out of such action.

3. The subject procurement will be done through e-tendering. The Bid document is available on Telangana e-tender website <https://tender.telangana.gov.in/> or on TSREDCO website's Home Page <https://tsredco.telangana.gov.in>. The Tender submission, Tender closing and opening will be done electronically and online.

**\*\*\*Note: The payment to be made to TSREDCO in respect of Bid Document fee, Bid Security deposit and Performance Security Value must be made through Online mode and the copy of payment receipt or acknowledgement is to be submitted along with Bid Document. The Bank Account details of TSREDCO are as follows:**

<b>Name of the Beneficiary</b>	<b>M/s. Telangana State Renewable Energy Development Corporation Ltd.(TSREDCO)</b>
<b>Account Number</b>	<b>30242010095314</b>
<b>IFSC Code</b>	<b>CNRB0013024</b>
<b>Bank Name</b>	<b>Canara Bank</b>
<b>Branch</b>	<b>Mukramjahi Road, Hyderabad.</b>



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**2.2 PROJECT LOCATION:**

2.2.1 Upgradation/Conversion of already installed off Grid Solar System to Hybrid On-Grid Solar System in various of Allapur clusters in Vikarabad District in Telangana State. The locations details as follows:

Sl.No	Village	Name of the School	Quantity in Nos	Capacity of plant in Kwp
1	Antharam	PS Antharam Thanda	1	1
2	Chandravanha	PS Chandravanha	1	1
3	Chengeshpur	PS Chengeshpur	1	1
4	Chengole	PS Chengole	1	1
5	Chinthamanipatnam	PS Chinthamanipatnam	1	1
6	Chittiganapur	PS Chittiganapur	1	1
7	Dasthagiripet	PS Dasthagiripet	1	1
8	Elmakanna	PS Elmakanna	1	1
9	Gingurthy	PS Gingurthy	1	1
10	Gingurthy Thanda	PS Gingurthy Thanda	1	1
11	Gundlamadugu Thanda	PS Gundlamadugu Thanda	1	1
12	Gunthabaspally	PS Gunthabaspally	1	1
13	Gouthapur	PS Gouthapur	1	1
14	Inelly	PS Inelly	1	1
15	Khanjapur	PS Khanjapur	1	1
16	Karankote	PS Karankote (VB)	1	1
17	Karankote	PS Karankote (B)	1	1
18	Karankote	PS Karankote	1	1
19	Konapur	PS Konapur	1	1
20	Kothlapur	PS Kothlapur	1	1
21	Misamma Thanda	PS Misamma Thanda	1	1
22	Malakpur	PS Malakpur	1	1
23	Mistabaspally	PS Mistabaspally	1	2
24	Ogipur	PS Ogipur	1	2
25	Parvathapur	PS Parvathapur	1	2
26	Rampur	PS Rampur	1	2
27	Rampur Thanda	PS Rampur Thanda	1	2
28	Sankiraeddy Pally	PS Sankiraeddy Pally	1	2
29	Veerareddy Pally	PS Veerareddy Pally	1	2
30	Veershetty Pally	PS Veershetty Pally	1	2
31	Allapur	UPS Allapur	1	2
32	Antharam	UPS Antharam	1	2



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Sl.No	Village	Name of the School	Quantity in Nos	Capacity of plant in Kwp
33	Belkatur	UPS Belkatur	1	2
34	Bizwar	UPS Bizwar	1	2
35	Gonur	UPS Gonur	1	2
36	Kotabaspally	UPS Kotabaspally	1	2
37	Narayanpur	UPS Narayanpur	1	2
38	Sangemkalan	UPS Sangemkalan	1	2
39	Sirigirpet	UPS Sirigirpet	1	2
40	Uddandapur	UPS Uddandapur	1	2
41	Chengole	ZPHS Chengole	1	2
42	Gingurthy	ZPHS Gingurthy	1	2
43	Karankote	ZPHS Karankote	1	2
44	Malkapur	ZPHS Malkapur	1	2

### **2.3 PROJECT SCOPE & TECHNOLOGY SELECTION**

Following conditions shall be applicable to the Bidders for submission of bids against this bid.

- (i) A Bidder Company shall submit a single bid for the above work in the prescribed format.
- (ii) The evaluation of bids shall be carried out as described in Section-IV of bid.

### **2.4 CONNECTIVITY WITH THE EXISTING 230V/440V/11KV LINE**

2.4.1 Refer Clause 14 of Section-V of the bid.

### **2.5 POWER GENERATION BY SUCCESSFUL BIDDER**

#### **2.5.1 CRITERIA FOR GENERATION**

The declared annual CUF shall in no case be less than 15%. Successful Bidder shall maintain generation so as to achieve annual CUF of minimum 15% value till the end of duration of 25 years. The lower limit will, however, be relaxable by TSREDCO to the extent of non-availability of grid for evacuation which is beyond the control of the successful bidder.

### **3. BID SECURITY DEPOSIT**

3.1 BID SECURITY DEPOSIT of INR 75,000 (Rupees Seventy Five Thousand only) as mentioned in Bid Information sheet for this Project is to be paid online to TSREDCO account or Bank Guarantee according to Format in favour of Telangana State Renewable Energy Development Corporation Ltd, (TSREDCO) and valid for 09 months from the last date of bid



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submission, shall be submitted by the Bidder along with their bid, failing which the bid shall be summarily rejected. The Bank Guarantees towards BID SECURITY DEPOSIT have to be issued in the name of the Bidding Company.

3.2 The Bidder shall make payment through online mode or furnish the Bank Guarantee towards BID SECURITY DEPOSIT from any of the any Nationalized Banks/Schedule Banks.

**Please note that:**

I. Vendors registered with NSIC/MSME under single point registration scheme certificate may be given exemption from BID SECURITY DEPOSIT for all tenders of TSREDCO subject to following condition:

a. NSIC /MSME Certificate must be valid for 9 months from the date of Bid-Opening, However tender fee is not exempted.

**The BID SECURITY DEPOSIT may be forfeited if:**

- a. If the bidder withdraws its bid during the period of bid validity as specified in the bid.
- b. If the bidder does not accept computational/arithmetical error correction made by TSREDCO and as explained in “Financial Evaluation” section of the Bid document.
- c. If the bidder does not accept assumptions, estimations etc. used for evaluation of bids as specified by TSREDCO in tender documents and revision of his bid accordingly, in case other assumptions are used. If the bidder does not accept the sharing as specified in the bid.
- d. In the case of successful bidder, if the bidder fails within the specified time limit:

- To sign the contract agreement within 15 days of placement of Lol/Award letter.
- To furnish the required performance guarantee, in accordance with the tender document.

**4 PERFORMANCE GUARANTEE DEPOSIT (PGD)**

4.1 Bidders selected by TSREDCO based on the tender shall submit Performance Guarantee @ 10% on the total project cost with quoted price. This Performance Guarantee amount shall be paid through online and submit the copy of acknowledgement to TSREDCO, which will be retained with TSREDCO for a period of sixty six months (5.5Years). No interest shall be paid by TSREDCO on the amount of Performance Guarantee deposit. On receipt of the Performance Guarantee amount, paid towards BID SECURITY DEPOSIT shall be returned by TSREDCO to the successful Bidder.



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In case of delays in submission of PGD, the issue of work agreement shall be extended until the submission of the PGD by the successful bidder. In such cases, the Effective Date of work completion shall remain unchanged. Further, the validity of the Bank Guarantee(s) against BID SECURITY DEPOSIT submitted by the Bidder shall have to be maintained by the successful bidder, until the submission of PGD. In the event of non-submission of PGD by the date of expiry of the BID SECURITY DEPOSIT, the BID SECURITY DEPOSIT submitted for the Project shall be encashed/revoked by the TSREDCO, and the Project shall stand terminated.

4.2 All Performance Guarantee Deposit (PGD) shall be paid through online to M/s. TSREDCO, Account no: 30242010095314, Canara Bank, Hyderabad.

4.3 The format of the Bank Guarantee prescribed in the Formats (BID SECURITY DEPOSIT) shall be strictly adhered to and any major deviation from the above Formats shall result in rejection of the BID SECURITY DEPOSIT and consequently, the bid. In case of deviations in the formats of the Bank Guarantees.

4.4 The successful Bidder for the Project selected based on this tender bid is to be submitted PGD within 15days after the issue of Lol. If the Selected Bidder does not submit the requisite documents as per Clause, Section-II, Instructions to Bidders (ITB) of tender document or does not meet eligibility criteria upon submission of documents or does not submit the PGD within the stipulated time period, then the Bank Guarantee equivalent to the amount of the BID SECURITY DEPOSIT shall be encashed/revoked by TSREDCO from the Bank Guarantee available with TSREDCO (i.e. BID SECURITY DEPOSIT ) as liquidated damages not amounting to penalty, the selected Project shall stand cancelled and the selected Bidder expressly waives off its rights and objections, if any, in that respect.

4.5 The Bank Guarantees have to be executed on non-judicial stamp paper of appropriate value as per Stamp Act relevant to the place of execution.

4.6 All expenditure towards execution of Bank Guarantees such as stamp duty etc. shall be borne by the Bidders.



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4.7 In order to facilitate the Bidders to submit the Bank Guarantee as per the prescribed format and in line with the requirements, checklist at Annexure has been attached. Bidders are advised to take note of the above checklist while submitting the Bank Guarantees.

4.8 After the bidding process is over, TSREDCO shall release the Bank Guarantees towards BID SECURITY DEPOSIT of the unsuccessful Bidders within 15 days after the completion of the bidding process. The PGD of successful bidder shall be returned to them, Only after successful completion of CMC period of their project, after taking into account any liquidated damages due to delays in commissioning as per Clause, Section-II, Instructions to Bidders (ITB) of tender bid.

**5 TSREDCO ADMINISTRATIVE CHARGES:**

**5.1** TSREDCO ADMINISTRATIVE CHARGES @ 5% plus GST as applicable on the actual project completion cost shall be deducted at the time of release of first payment.

5.2 TSREDCO Administrative charges are charged towards site visits, inspection, liaison, monitoring etc.

**6. PAYMENT TERMS:**

Payment will be settled on receipt of funds from beneficiary dept. as stated below:

a) 70% of purchase order value will be settled on completion of work and handing over of the systems to Concerned Beneficiary Department officials after joint inspection of TSREDCO, Beneficiary Dept. officials and supplier.

b) Contractor shall submit the performance and Warranty Certificates for a period of 5 Years for Inverter & other components as per MNRE guidelines.

c) 30% will be paid after 90 days of Successful performance and satisfactory of the System, joint inspection will be conducted with of TSREDCO officials, Beneficiary Dept. officials and supplier, before releasing of amount.

d) The Contractor shall raise GST invoice in accordance with the rates quoted in Price Bid.

e) Income tax TDS, GST TDS will be deducted by the TSREDCO from all payment made to the Contractor. This will be as per the Rules and Regulations in force and in accordance with the Income Tax Act, GST Act prevailing from time to time.



f) **TSREDCO ADMINISTRATIVE CHARGES @ 5% plus GST** as applicable on the actual project completion cost shall be deducted at the time of release of first payment.

g) In case the due date for filing the GST return for the period to which the invoice issued relates to is completed, then a proof for filing invoice in the GST Return and proof of payment of GST shall be submitted for release of payment. In other cases, an indemnity Bond cum undertaking in favour of TSREDCO for filing of GST Return and payment of GST to the Government (in the format provided by TSREDCO) should be submitted for release of payment. Copy enclosed.

**7) COMMISSIONING:** The Commissioning of the Project shall be carried out by the successful bidder in line with the procedure elaborated in work agreement.

**7.1. PART COMMISSIONING:** There shall be no Part Commissioning allowed for the Project. Subject to site conditions and Only with the prior approval of beneficiary.

#### **7.2 PENALTY FOR DELAY IN PROJECT IMPLEMENTATION**

If the bidder fails to commission the allocated capacity within **60 to 180days** from date of issue of allocation letter, Penalty on per day basis calculated for the Performance Security on a 60 to 180days period would be levied. After above project duration period allocated capacity will get cancelled and the PGD amount pro-rata to non-commissioned capacity would be forfeited. Example: If a project of 500 kW is delayed by 36 days then the LD will be levied as given below.

Eg. PENALTY = ((Performance Security)/180 days)\*delayed days = (15,00,000 /180)\*36

#### **8. COMMERCIAL OPERATION DATE (COD)**

Commercial Operation Date (COD) shall be the date on which the commissioning certificate is issued upon successful commissioning of the full capacity of the Project.

(a) **Commissioning of the Project:** This will be on a date, when the project meets the criteria defined for project commissioning. TSREDCO to declare the project commissioned on site.

#### **9. STRUCTURING OF THE BID SELECTION PROCESS**

9.1 Single stage, Double Envelope bidding followed by negotiations has been envisaged under this bid. Bidders have to submit both Techno-Commercial Bid and Financial Bid (Rate)





together in response to this bid online. The preparation of bid proposal has to be in the manner described in Clause, Section-II, Instructions to Bidders (ITB) of bid.

#### **10. INSTRUCTIONS TO BIDDERS FOR STRUCTURING OF BID PROPOSALS IN RESPONSE TO BID:**

The bidder shall submit single response to bid.

Detailed Instructions to be followed by the bidders for online submission of response to tender are stated at Annexures

Submission of bid proposals by Bidders in response to tender shall be in the manner described below:

- i. Covering Letter
- ii. Earnest Money Deposit (BID SECURITY DEPOSIT) in the form
- iii. Format for Financial Requirements along with the certificate from practicing Chartered Accountant/ Statutory Auditors showing details of computation of the financial credentials of the Bidder.
- iv. A disclosure statement regarding participation of any related companies in the bidding process.
- v. Format for Technical Criteria in line with Clause, Section-II, Instructions to Bidders (ITB) of tender.
- vi. Details of all types of securities/instruments which are pending conversion into equity whether optionally or mandatorily.
- vii. No Deviation Certificate as per mentioned in Format.
- viii. Certified copies of annual audited accounts for the last financial year, i.e. FY 2019-20.

#### **11. IMPORTANT NOTES AND INSTRUCTIONS TO BIDDERS**

11.1 Wherever information has been sought in specified formats, the Bidders shall fill in the details as per the prescribed formats and shall refrain from any deviations and referring to any other document for providing any information required in the prescribed format.

11.2 The Bidders shall be shortlisted based on the declarations made by them in relevant schedules of tender. The documents submitted online will be verified before issuing of Lol in terms of Clause, Section-II, Instructions to Bidders, ITB of tender.

11.3 If the Bidder conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in its response to tender, in any manner whatsoever, TSREDCO reserves the right to reject such response to tender and/ or cancel the Letter of Award, if issued, and the Bank Guarantee provided up to that stage shall be



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enchased/revoked. Bidder shall be solely responsible for disqualification based on their declaration in the submission of response to tender bid.

11.4 Response submitted by the Bidder shall become the property of the TSREDCO and TSREDCO shall have no obligation to return the same to the Bidder. However, the BID SECURITY DEPOSITS submitted by unsuccessful Bidders shall be returned as specified in Clause, Section-II, Instructions to Bidders (ITB) of bid.

11.5 All documents of the response to bid (including bid and subsequent Amendments/ Clarifications) submitted online must be digitally signed by the person authorized by the Board as per Format.

11.6 The response to bid shall be submitted as mentioned in Clause, Section-II, Instructions to Bidders (ITB) of bid. No change or supplemental information to a response to bid will be accepted after the scheduled date and time of submission of response to bid. However, TSREDCO reserves the right to seek additional information from the Bidders, if found necessary, during the course of evaluation of the response to bid.

11.7 The bidder shall make sure that the correct, valid and operative Pass-Phrase to decrypt the relevant Bid-part is submitted into the 'Time Locked Electronic Key Box (EKB)' after the deadline of Bid submission, and before the commencement of the Online Tender Opening Event (TOE) of Technical bid.

11.8 All the information should be submitted in English language only. In case of foreign bidders having documents in other than English language, then the documents shall be translated in English language by certified translator and submitted.

11.9 Bidders shall mention the name of the contact person and complete address and contact details of the Bidder in the covering letter.

11.10 Response to tender that is incomplete, which do not substantially meet the requirements prescribed in this tender, will be liable for rejection by TSREDCO.

11.11 Response to bid not submitted in the specified formats will be liable for rejection by TSREDCO.

11.12 Bidders delaying in submission of additional information or clarifications sought will be liable for rejection.

11.13 Non-submission and/ or submission of incomplete data/ information required under the provisions of bid shall not be construed as waiver on the part of TSREDCO of the obligation of the Bidder to furnish the said data/ information unless the waiver is in writing.

11.14 Only Telangana Courts shall have exclusive jurisdiction in all matters pertaining to this tender bid.



## **12. NON-RESPONSIVE BID**

The electronic response to bid submitted by the bidder along with the documents submitted offline to TSREDCO shall be scrutinized to establish “Responsiveness of the bid”. Each bidder’s response to bid shall be checked for compliance with the submission requirements set forth in this bid.

Any of the following conditions shall cause the Bid to be “Non-responsive”: -

- (a) Non-submission of Cost of bid as mentioned in the Bid Information Sheet;
- (b) Non-submission of BID SECURITY DEPOSIT in acceptable form along with bid document.
- I Response to bid not received by the due date and time of bid submission;
- (d) Non-submission of correct, valid and operative Pass-Phrase to decrypt either the Technical Bid Part or Financial Bid Part offline before due date and time of submission of bid;
- (e) Non-submission of the original documents mentioned at Clause, Section- II, Instructions to Bidders (ITB) of tender bid by due date and time of bid submission;
- (f) Any indication of rate in any part of response to the bid, other than in the financial bid;
- (g) Data filled in the Electronic Form of Financial Bid (Second Envelope), not in line with the instructions mentioned in the same electronic form;
- (h) In case it is found that the Bidding Company have submitted more than one response to this Tender bid, then all these bids submitted shall be treated as non-responsive and rejected.

## **13. METHOD OF SUBMISSION OF RESPONSE TO TENDER BY THE BIDDER**

**A. DOCUMENTS TO BE SUBMITTED OFFLINE (IN ORIGINAL):** The bidder has to submit the documents in original as part of Response to Tender bid to the address mentioned in Bid Information Sheet before the due date and time of bid submission.

Bidding Envelope: Super scribed as “Bidding Envelope containing i) Covering Envelope, ii) Pass Phrase Envelope -1 & iii) Pass Phrase Envelope -2” at the top of the Envelope and “Name & Address of the Bidder” on the left hand side bottom must contain the following

I. Covering Envelope: Super scribed as “Covering Envelope Containing Cost of Tender bid Document, Bank Guarantee towards BID SECURITY DEPOSIT, Covering Letter, and Power of Attorney (if applicable), Consortium Agreement (if applicable), Board Resolution” must contain the following



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- Copy of payment receipt/acknowledgement towards Cost of Tender bid Document as mentioned in Bid Information Sheet.
  - Bank Guarantee towards BID SECURITY DEPOSIT as mentioned in the Bid Information Sheet (as per Format). One BID SECURITY DEPOSIT may be submitted for the cumulative capacity quoted by the Bidder.
  - Covering Letter as per Format
  - Power of Attorney as per Format (if applicable),
  - Board Resolution as per Format
  - Consortium Agreement as per Format (if applicable)
  - GSTN along with respective registered address of the Bidder on the letterhead of the Bidder (signed by the Authorized signatory)
- II. Pass-Phrase Envelope-1: Containing Pass Phrase for Technical Bid duly signed by the authorized signatory in sealed envelope.
- III. Pass-Phrase Envelope-2: Containing Pass Phrase for Financial Bid duly signed by the authorized signatory in sealed envelope.

The bidding envelope shall contain the following sticker:

<b><i>Response to Tender for Selection of Solar Power Developers for upgrading of already installed solar off grid system to hybrid on grid plant at Various of Schools at Allapur Cluster of Vikarabad District in Telangana State</i></b>	
<i>Cumulative Capacity of the projects applied for</i>	66 kWp
<i>No. of Projects Bid for</i>	
<i>Tender Reference No.</i>	TSREDCO/SE/SPV/UPG- Allapur Cluster /2021-22, Dt: _04.08.2021
<i>Submitted by</i>	<i>(Enter Full name and address of the Bidder)</i>
<i>Authorized Signatory</i>	<i>(Signature of the Authorized Signatory)</i> <i>(Name of the Authorized Signatory)</i> <i>(Stamp of the Bidder)</i>
<i>Bid Submitted to</i>	<b>VC &amp; Managing Director</b> TELANGANA STATE RENEWABLE ENERGY DEVELOPMENT CORPORATION LTD (TSREDCO) Corporate Office: D. No. 6-2-910, Visvesvaraya Bhavan, The Institution of Engineers Building, Khairatabad, Hyderabad - 500 004. Telangana State, India



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PHONE: 040-23201502 / 03, FAX : 040-23201504  
E-mail : [info@tsredco.telangana.gov.in](mailto:info@tsredco.telangana.gov.in),  
[se@tsredco.telangana.gov.in](mailto:se@tsredco.telangana.gov.in)

**B. DOCUMENTS TO BE SUBMITTED ONLINE**

Detail instructions to be followed by the bidders for online submission of response to Tender bid. The bidders shall strictly follow the instructions mentioned in the electronic form in respective technical bid and financial bid while filling the form

If the Bidder has submitted offline documents and fails to submit the online bid, then the same shall be treated as incomplete bid and Cost of Tender bid submitted shall be encashed and the BID SECURITY DEPOSIT (s) shall be returned. The bid shall not be processed further in such case.

All documents of the response to Tender bid submitted online must be digitally signed on [www.tender.telangana.gov.in](http://www.tender.telangana.gov.in) which should contain the following:

**14. VALIDITY OF THE RESPONSE TO TENDER BID**

The Bidder shall submit the response to Tender bid which shall remain valid up to 4 (four) months from the last date of submission of response to Tender bid ("Bid Validity"). TSREDCO reserves the right to reject any response to Tender bid which does not meet the aforementioned validity requirement.

**15 BID PREPARATION COST**

The Bidder shall be responsible for all the costs associated with the preparation of the response to Tender bid. TSREDCO shall not be responsible in any way for such costs, regardless of the conduct or outcome of the bid process.

**16 CLARIFICATIONS/ ENQUIRIES/ AMENDMENTS**

16.1 Clarifications/ Doubts, if any, on Tender bid document may be emailed to [se@tsredco.telangana.gov.in](mailto:se@tsredco.telangana.gov.in) and/ or through [www.tender.telangana.gov.in](http://www.tender.telangana.gov.in) portal.

16.2 A compiled list of such questionnaire and TSREDCO's response will be uploaded in the website TSREDCO or e-tender ([www.tender.telangana.gov.in](http://www.tender.telangana.gov.in)). If necessary, amendments, clarifications, elaborations shall be issued by TSREDCO which will be notified on TSREDCO/ [www.tender.telangana.gov.in](http://www.tender.telangana.gov.in) web site. No separate reply/ intimation will be given for the above, elsewhere.



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**16.3 Enquiries/ Clarifications may be sought by the Bidder from**

Sl.No	Designation	Contact Numbers	Email id
1.	General Manager	040 - 23201502/03	<a href="mailto:gm@tsredco.telangana.gov.in">gm@tsredco.telangana.gov.in</a>
2.	Project Director	040 - 23201502/03	<a href="mailto:se@tsredco.telangana.gov.in">se@tsredco.telangana.gov.in</a>

**RIGHT OF TSREDCO TO REJECT A BID:**

TSREDCO reserves the right to reject any or all of the responses to Tender bid or cancel the Tender bid or annul the bidding process for any project at any stage without assigning any reasons whatsoever and without thereby any liability. In the event of the tender being cancelled at any stage, BID SECURITY DEPOSIT submitted by the Bidders shall be returned to the respective Bidders.

**18. POST AWARD COMPLIANCES**

Timely completion of all the milestones i.e. Commissioning, Synchronization etc. will be the sole responsibility of successful bidder. TSREDCO/Beneficiary Dept. shall not be liable for issuing any intimations/ reminders to successful bidders for timely completion of milestones and/ or submission of compliance documents.

Any checklist shared with successful bidder by TSREDCO for compliance of above mentioned milestones to be considered for the purpose of facilitation only. Any additional documents required as per the conditions of Tender bid and work agreement must be timely submitted by the successful bidder.



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**SECTION - III**

**TENDER SCHEDULE**



**SECTION - III**  
**TENDER SCHEDULE**

**1. PREAMBLE:**

The scope of work for the bidder include upgradation/Conversion of already installed Off grid systems to On Grid roof top solar photo voltaic Hybrid power plants with five years of comprehensive maintenance contract under net-metering scheme at Allapur Cluster under R-URBAN scheme in Telangana State through e-procurement platform (i.e. [www.tender.telangana.gov.in](http://www.tender.telangana.gov.in)).

On behalf of consumers therein, TSREDCO inviting Bids for upgradation/Conversion of already installed Off grid systems to On Grid roof top solar photo voltaic Hybrid power plants with five years of comprehensive maintenance contract under net-metering scheme at Allapur Cluster under R-URBAN scheme in Telangana State. Bidders shall quote as per financial bid format.

The Successful Bidder(s) shall work closely with the State Government departments, Institutions, non-profit organizations institutions in implementing the above work and ensure success of the program. Installations will have to be generally done as follows from receipt of work orders/entering into agreements with the User Agency /TSREDCO.

**2. INCOME TAX:**

During the course of the contract period, deduction of income tax and surcharge at source shall be made at the prevailing rate issued by Income Tax Department from time to time on the gross amount of each bill.

**3. RATES , TAXES AND DUTIES:**

All the rates in the tender shall be inclusive of all statutory compliances like PF, ESI, Service Tax, GST, etc. However, any changes made to the tax structure by the government shall be duly considered and appropriate changes made.

**4. PLACE OF WORK AND VISIT TO SITE:**

Intending tenders shall visit the Site/ Campus to acquaint with local site conditions, nature and requirement of work, present conditions of premises/fittings/fixtures, etc., before start of the work.





**5. BID DETAILS:**

The bid shall be on CAPEX MODE for design, supply, installation and commissioning of Hybrid solar rooftop systems and the rate quoted by the bidders for considering rate for the Rooftop project with module cleaning as per requirement of beneficiary dept.

**6. ELIGIBILITY CRITERIA:**

- a. Valid Registered SPV Suppliers/ Manufacturers/ System Integrators with TSREDCO.
- b. Bidder should have experience at least minimum **40KWp cumulative capacity in field OFF Grid and ON Grid** Solar PV systems installed at government buildings in any one (1) FY from the last 3 Years (i.e. FY 2018-19, 2019-20 and 2020-21)
- c. Experience certificate along with performance from beneficiary, should be before 6months from last date.

**6.1. TECHNICAL ELIGIBILITY CRITERIA:**

a. Under this tender, it is proposed to promote only commercially established and operational technologies to minimize the technology risk and to achieve timely commissioning of the Projects. The Bidder may indicate regarding the selection of technology and its details at the time of submission of bids in the prescribed Format. However, the Successful Bidder has to confirm the selection of technology in line with the above. The technology proposed at the time of submission of response to tender can be changed at the time of Financial Closure.

b. Detailed technical parameters for Solar PV Projects to be met by successful bidder are at Annexure. The Bidders shall strictly comply with the technical parameters detailed in the Annexure. Further, the cells and modules used in the Project shall be sourced only from the models and manufacturers included in the “Approved List of Models and Manufacturers” as published by MNRE and updated as on the date of commissioning of the Project.

- d. The Projects shall also comply with the criteria for power generation detailed in Clause in Section-II, Instructions to Bidders (ITB) of tender bid.



## **6.2 FINANCIAL ELIGIBILITY CRITERIA:**

Bidder should have annual turnover of Rs.1.00 Cr. In any one (1) Financial Year during the last three financial years i.e. 2018-19, 2019-20 and 2020-2021(Certificate from CA is to be furnished).

## **7. FORCE MAJEURE**

a. Notwithstanding the provisions of clauses contained in this BID document; the contractor shall not be liable to forfeit

(a) Security deposit for delay and

(b) Termination of contract; if he is unable to fulfill his obligation under this contract due to force majeure conditions.

b. For purpose of this clause, “Force Majeure” means an event beyond the control of the contractor and not involving the contractor’s fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes etc. Whether a “Force majeure” situation exists or not, shall be decided by TSREDCO and its decision shall be final and binding on the contractor and all other concerned.

c. In the event that the contractor is not able to perform his obligations under this contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond six months, TSREDCO has the right to terminate the contract in which case, the security deposit shall be refunded to him.

d. If a force majeure situation arises, the contractor shall notify TSREDCO in writing promptly, not later than 14 days from the date such situation arises. The contractor shall notify TSREDCO not later than 3 days of cessation of force majeure conditions. After examining the cases, TSREDCO shall decide and grant suitable additional time for the completion of the work, if required.

## **8. COMMISSIONING /COMPLETION CERTIFICATE**

a. Application for completion/commissioning certificate:

When the Successful bidder fulfills his obligation under the Contract, he shall be eligible to apply for Completion Certificate. The Engineer-in-Charge of TSREDCO and beneficiary department officials shall normally issue to the Successful bidder the Completion Certificate



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within 15days after receiving any application therefore from the Successful bidder after verifying from the completion documents and satisfying themselves that the Work has been completed in accordance with and as set out in Contract.

**b. DOCUMENT SUBMISSION FOR ISSUE COMMISSINONING/COMPLETION CERTIFICATE:**

For the purpose of above the following documents will be deemed to form the completion documents:

- c. Checklist for inspection of Roof top SPV power plants as per TSREDCO format.
- d. Project completion report from successful bidder as per MNRE format
- e. Project completion/satisfaction certificate from concern beneficiary dept. officials.



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**SECTION - IV**

**BID EVALUATION AND SELECTION OF PROJECTS**



## SECTION - IV

### BID EVALUATION AND SELECTION OF PROJECTS

#### 1 BID EVALUATION

Bid evaluation will be carried out considering the information furnished by Bidders as per provisions specified in Section-II, Instructions to Bidders (ITB) of this tender. The detailed evaluation procedure and selection of bidders are described in subsequent clauses in this Section.

#### 2 TECHNO-COMMERCIAL EVALUATION OF BIDDERS

##### 2. a. FIRST ENVELOPE (TECHNICAL BID) EVALUATION (STEP - 1)

2.a.1 The first envelope (Technical Bid submitted online) of only those bidders will be opened by TSREDCO whose required documents as mentioned at Clause, Section-II, Instructions to Bidders (ITB) of this Tender are received at the office of TSREDCO on or before the due date and time of bid submission.

2. A.2 Documents (as mentioned in the previous clause) received after the bid submission deadline specified in the Bid Information Sheet shall be rejected and returned unopened, if super-scribed properly with address, to the bidder.

2.a.3 Subject to Clause, Section-II, Instructions to Bidders (ITB) of this Tender, TSREDCO will examine all the documents submitted by the Bidders and ascertain meeting of eligibility conditions prescribed in the Tender. During the examination of the bids, TSREDCO may seek clarifications/ additional documents to the documents submitted etc. from the Bidders if required to satisfy themselves for meeting the eligibility conditions by the Bidders. Bidders shall be required to respond to any clarifications/ additional documents sought by TSREDCO within 07 (seven) days from the date of such intimation from TSREDCO. All correspondence in this regard shall be made through email/ e-tender portal only. It shall be the responsibility of the Bidder to ensure that the email id of the authorized signatory of the Bidder is functional. The Bidder may provide an additional email id of the authorized signatory in the covering letter. No reminders in this case shall be sent. It shall be the sole responsibility of the Bidders to remove all the discrepancies and furnish additional documents as requested. TSREDCO shall not be responsible for rejection of any bid on account of the above.



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2.a.4 The response to Tender submitted by the Bidder shall be scrutinized to establish Techno- Commercial eligibility as per Tender.

**2.b SECOND ENVELOPE (FINANCIAL BID) EVALUATION (STEP - 2)**

2.b.1 Second Envelope of only those bidders shall be opened, whose technical bids are found to be qualified. After this step, the L1 bidder shall be invited for the negotiations.

2.b.2 The Bidder will have to submit a single bid (single application) for this project and quoting a single rate per Wp for the total project applied for. The rate has to be quoted up to two places of decimal only. If it is quoted with more than two digits after decimal, it shall be ignored after first two decimal places. (For e.g. if the quoted rate is INR 40.337, then it shall be considered as INR 40.33).

2. b.3 In this step, evaluation will be carried out for this Project separately based on rate per Wp quoted by Bidders.

2.b.5 On completion of Techno-Commercial bid evaluation, if it is found that only one or two Bidder(s) is/are eligible per project for the next stage, opening of the financial bid of the bidder will be at the discretion of TSREDCO. Thereafter, TSREDCO will take appropriate action as deemed fit.

2.b.6 If the first-round rate quoted is same for two or more Bidders for this project, then all the Bidders with same rate shall be considered of equal rank/ standing in the order.

2.b.7 All Bidders with same (L1) rate shall be eligible for negotiations.

**3. SELECTION OF SUCCESSFUL BIDDER:**

3.1 The bidder shall be selected with lowest quoted rate (being L1) for this project. In case of a tie among two or more bidders (i.e. their quoted rate being the same at the end), they will be considered for further negotiations.

3.2 At the end of selection process, a Letter of Intent (LOI) will be issued to the successful Bidders for this Project.



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**SECTION - V**

**TECHNICAL SPECIFICATIONS**



**Section - V**

**Technical Specifications**

The proposed projects shall be commissioned as per the technical specifications given below. Competent Authority's decision will be final and binding on the bidder.

**DEFINITION:**

A Hybrid Grid Solar Rooftop Photo Voltaic (SPV) power plant consists of Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Grid interactive Power Conditioning Unit with Remote Monitoring System and accessories with net metering facility.

**1. SCOPE OF WORKS AND SERVICES:**

Scope of Supply & Work includes Replacement of equipment and materials; testing at manufacturers works, inspection, packing and forwarding, unloading at site, associated, services, permits, installation and incidentals, erection, testing and commissioning of Hybrid Solar PV Power Plants with associated equipment and materials under Net-metering Scheme, on turnkey basis at various Govt. Buildings in Telangana State. The equipment and materials replacement of OFF grid inverters with Hybrid Solar inverters with associated system shall include but not be limited to the Design, Supply, Erection, and Testing & Commissioning of the following equipment and sub-systems:

- a. Replacement of Existing Off grid inverter with Hybrid inverter p
- b. Distribution of loads into 2 parts, Off grid and ON grid
- c. Buy back of Off grid inverter
- d. DC & AC Distribution Board/s suitable for Hybrid systems
- e. Auxiliary AC & DC power system for control and protection system for the total plant complex including Battery and Battery charger for inverter and other such accessories that require a power backup.
- f. Plant Monitoring Desk
- g. AC/DC Power and Control Cables and accessories
- h. Communication system with existing plant installations and control rooms
- i. Contractor should obtain necessary permissions and approvals from the TSDISCOMs and Electrical Inspectorate for implementation of the project and net-metering and submit a copy of the same to Beneficiary Dept., and TSREDCO officials.





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- j. The contractor/successful bidder has to prepare total project (design) documents related to this work as per MNRE formats on behalf of beneficiary dept. officials will sign on application forms, if any.

**Scope of the successful Bidder shall also include:**

- a. Procurement and expediting of all supplies and Delivery of equipment and material to each job site.
- b. Pre-commissioning & Commissioning of all supplied Equipment and Test running of Grid Connect Solar Power Plant.
- c. Any other items not specifically mentioned in the specification but which are required for erection, testing and commissioning and satisfactory operation of the solar power plant are deemed to be included in the scope of the specification unless specifically excluded on turnkey basis.
- d. Project management including project administration, project coordination, scheduling, progress reporting to employer and adhering to safety practices during erection, commissioning and subsequent operation and maintenance of the system including fire prevention.
- e. Hybrid inverter Capacity:

Sl.No	Power pack Capacity	No. of systems	No. of Hybrid Inverter Required	Hybrid Inverter Capacity Required in KWp	Total Cumulative Capacity in Kwp
1	1KWp	Various already installed off grid power pack systems	22	1	22
2	2KWp		22	2	44
Total			44		66

**Note: The capacities may vary subjected to the technical feasibility of TS Discom based on the sanction load.**



**2. INVERTERS / POWER CONDITIONING UNIT (PCU)**

**A. HYBRID SOLAR INVERTER:**

The PCU / Grid Tied Inverter shall carry a warranty of minimum 5years

Feature	Minimum Specification
	The OEM should have service center in the state of Telangana and service centers address, engineers name and contact number should be furnished)
	Hybrid solar inverter should be a combined unit comprising of MPPT charge controller, visual display, necessary protections and provision to export excess power to Grid and with option of blocking the export.
	a) It should have Integrated MPPT Charge Controller/ In case of MPPT charge controller is not built-in inside the inverter, IEC 62093 test certificate should be provide separately for charge controller. IEC 62093 report should be enclosed along with bid b) It should not over charge the batteries once all the batteries are fully charged. c) It should sustain both the temperature during winter and summer season d) It should have protection from over voltage, under voltage, over current protection. e) It should have short circuit protection. f) It should be rated for continuous operation at full load. g) It should have solar priority grid charging.
Switching Elements	IGBT/MOSFET
Type of Charge Controller	MPPT Charge Controller
Nominal Inverter Capacity	1-Phase : 1kW, 2kW, 3kW, 4kW & 5kW
Nominal Array Capacity	Equivalent/More to the Inverter Capacity.
Maximum DC Voltage	145 V DC to 180V DC for 1- Phase inverters is allowed
Mppt Voltage range	65V - 115 V DC for 1- Phase inverters
Battery Nominal Volt	Less than/ equal to 60V due to space constraint and as per MNRE guidelines in view of safety above 60V DC is not accepted
Inverter Surge Rating @ 40 deg C	105% > 10 sec
Inverter Output Voltage	230V+/- 1% for single phase (During Solar/Battery Mode)
Inverter Output Frequency (Synchronization range)	50+/-0.5Hz (Synchronized to Mains during grid export operation)



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Grid synchronization Voltage range	170V-270V (Inverter should charge the battery & Inverter should able to work at this voltage range)
Grid Frequency range	50 Hz (48.5 to 51.5 Hz)
Inverter Efficiency @ 40 deg C Nominal Load	Above 80 % for 1kw & 2kw Above 90 % for 3kw, 4kw, 5kw
Operating Ambient Temperature	0 to 50 deg C
Humidity	95 % max. non condensing
Enclosure	IP 20, Powder Coated
Cooling	Forced air Cooling
Protection	Short Circuit, Overload Over Temperature Over Voltage
Output wave form	Pure Sine Ware
Mounting Type	Wall mounting only to save the floor space and also for easy visibility of inverter operation
Dimension	Upto 5kW (DXWXH) 200X310 x 500 in mm (preferred due to space constraint and 10kw (DXWXH) 175 X 500 X 650 in mm (Preferred Due to Space constraint) Inverters with upto 50% more than above dimensions are acceptable subject to space constraint at site.
Grid Charger Capacity	Suitable to charge the battery and feed to inverter simultaneously minimum 10% to the battery AH capacity to be provided to charge the battery.
IEC Test Certificates from lab as per below standards should be enclosed along with bid.	
Environmental Testing	IEC 60068-2 (1,214,30)
Efficiency Measurements	IEC 61683
Safety Measurements	IEC 62109-1 & IEC 62109-2
Anti-Islanding Protection and utility interface	IEC 62116:2014 and IEC 61727:2004
Electromagnetic compatibility and electromagnetic interference of inverter	IEC 61000-3, IEC 61000-4
In case of delay in installing the net meter there should be provision to block the export of power to grid	



**3. ENERGY METERING:**

Digital Communicable Energy Meters shall be provided for measuring power consumption by grid side loads on continuous basis and register the cumulative energy on 30-minute interval basis (Programmable/adjustable), daily, monthly and annually the energy generated. The Energy Meter shall have default display of Cumulative kWh. The following parameters to be displayed on-demand:

- a. The Energy Meter shall have 4-quadrant measurement method and shall be suitable for 3-wire as well as 4-wire connection.
- b. The meter shall also record Maximum Demand at set interval. TOD (Time of Day) measurement shall also be possible.
- c. The energy meter shall communicate with the Data Acquisition System / other plant network over MODBUS protocol.
- d. Separate Meters shall be provided for Solar Power Generation and Auxiliary load consumption.
- e. In case more than one inverter circuits are used for synchronizing with the grid then similar meters shall be provided for each inverter output circuit.
- f. Additionally one digital summator shall also be provided for calculation and display of total concurrent energy/ demand of all the feeders.
- g. Meters shall comply with the requirements of CEA Regulations on Installation & Operation of Meters.
- h. The functional Specification of the energy meters shall be as follows:
  - Applicable IS: IS 13779 or IS 14679 depending upon accuracy of meters.
  - Accuracy Class Index: 0.2S
  - Power factor range: Zero lag-unity-zero lead
  - Display parameters : LCD test, KWH import, KWH export, MD in KW export, MD in KW import, Date & Time, AC(phase wise and line wise) current and voltages and power factor and frequency (Cumulative KWH will be indicated continuously by default & other parameters through push-button) .
  - Power Consumption: Less than 4VA in Voltage circuit and 2 VA for Current circuit.
  - Frequency: 50 Hz with + / -5% variation
  - Test Output Device: Flashing LED visible from the front
  - Billing data: Meter serial number, Date and time, KWH import, KWH export, MD in KW (both export and import), History of KWH import and export, & MD (both export & import).



- All these data shall be accessible for reading, recording and spot billing by downloading through optical port/RS485 on MRI or Laptop computers at site.

#### **4. INTEGRATION OF PV POWER WITH GRID:**

The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid. Once the DG set comes into service PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.

#### **5. DATA ACQUISITION AND LOGGING**

- i. Data Acquisition System shall be provided for each of the solar PV plant.
- ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.
- iii. Solar Irradiance: An integrating Pyranometer / Solar cell based irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.
- iv. Temperature: Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with readouts integrated with the data logging system
- v. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
  - a. AC Voltage.
  - b. AC Output current.
  - c. Output Power
  - d. Power factor.
  - e. DC Input Voltage.
  - f. DC Input Current.
  - g. Time Active.
  - h. Time disabled.
  - i. Time Idle.



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- j. Power produced
- k. Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage.
- vi. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a month and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
- vii. PV array energy production: Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. Energy meter along with CT/PT should be of 0.5 accuracy class.
- viii. Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.
- ix. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
- x. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.
- xi. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
- xii. All instantaneous data shall be shown on the computer screen.
- xiii. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
- xiv. Provision for Internet monitoring and download of data shall be also incorporated.
- xv. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and temperature monitoring system.
- xvi. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.
- xvii. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.
- xviii. Remote Monitoring and data acquisition from ranging of 1kWp through Remote Monitoring System software at the Beneficiary department/TSREDCO location with latest software/hardware configuration and service connectivity for online / real time data



monitoring/control complete to be supplied and operation and maintenance/control to be ensured by the supplier. Provision for interfacing these data on TSREDCO server and portal in future shall be kept.

**6. DC DISTRIBUTION BOARD:**

- 6.1 DC Distribution panel to receive the DC output from the array field.
- 6.2 DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. The bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

**7. AC DISTRIBUTION PANEL BOARD:**

- a) AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
- c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
- d) All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz
- e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
- f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g) Should conform to Indian Electricity Act and rules (till last amendment).
- h) All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SUCCESSFUL BIDDERS, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

Variation in supply voltage	---	+/- 10 %
Variation in supply frequency	----	+/- 3 Hz

**8. POWER CONSUMPTION:**

Regarding the generated power consumption, priority need to give for internal consumption first and thereafter any excess power can be exported to grid. Finalization of rate is not under



the purview of TSREDCO or MNRE. Decisions of appropriate authority like DISCOM, state regulator may be followed.

#### **Instruction Manuals for Operation & Maintenance**

- Complete and comprehensive instruction manuals for operation and maintenance of the equipment with drawings. This shall include the following:
- Preventive maintenance schedule for each equipment
- Procedure for shut down and start-up of the entire power plant
- Safety procedures for safe operation of equipment and complete system
- Specification of equipments installed.
- Test procedure for site tests

Upon installation and commissioning supplier shall incorporate revisions/ modifications if any in the reproducible and submit 'as built' drawings for employer's record as per general condition of contract.

#### **9. DELIVERY**

The completion period of the project is limited to 02 months. No further extension shall be provided except under Force Majeure.

#### **10. INSPECTION**

Manufacturing progress review, inspection & testing of equipment covered under the technical specification shall be carried out by the Employer at the manufacturers' works/premises prior to dispatch, to ensure that their quality & workmanship are in conformity with the contract specifications and approved drawings.

The Bidder shall furnish the quality assurance plan for equipment separately with suggestive stages and hold points for undertaking inspection and testing by the Employer. Total list of plant & equipment of the order shall be submitted to the Employer prior to submission of QAP

The Employer reserves the right to visit at any stage of manufacture of plant and equipment and ask for additional inspection & tests beyond approved QAP, if it is found necessary after completion of detailed design & engineering and approval of drawings





### **11. TESTS AND INSPECTION**

Following tests shall be conducted on equipment after erection and before energizing from point of view of completeness in the presence of employer:

- Visual inspection of total system
- Checking of continuity of power and control cables.
- Checking of insulation resistance for inter-connected links or cables.
- Calibration of meters by secondary injection or by primary injection
- Checking of protective schemes
- Setting of relays, and the checking of their operation with one lower and one higher setting.
- Checking of control scheme of breakers, etc. as per approved drawings and as per actual requirement
- Checking of alarm scheme by simulation of faults.
- Checking of name plate data of complete system.
- Verification of earthing resistance.
- Checking of cable terminations and laying, dressing etc.
- Checking for safe accessibility of components.

### **12. INSTALLATION GUIDELINES**

- All the replacement of off grid systems with Hybrid On grid systems with related equipment and electrical installations shall conform to the Indian Electricity Act, Indian Electricity Rules, and regulations.
- Mounting of Inverters, Electrical panels, Dc and Ac junction boxes, Monitoring systems shall be done with proper mounting procedures with neat look.

### **13. ERECTION, TESTING, COMMISSIONING**

The scope of work of the Bidder shall be complete Replacement of OFF grid inverters with Hybrid Solar inverters with related equipment, cables, auxiliary systems and sub systems under the scope of work. The Bidder shall make all arrangements to deliver the equipment at site by wagons/ trucks/ trailers, build his own stores (covered, uncovered, air-conditioned, if necessary) for the proper storage of equipment, maintain the stores and all related documents and records, transport the equipment to site for erection purpose. The Bidder also shall make all security arrangements.



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- The Bidder shall be responsible for proper, quick retrievable and neat storage and also undertake the conservation of all consignments including damaged boxes. During storage of equipment, the Bidder shall take into account deterioration and carry out the re-conservation of the complete equipment/parts/supplies as may be necessary as per the storage instructions of the Manufacturer of equipment/ components. The Bidder shall also supply the consumables required for such re-conservation work and repair/ replace parts required thereof for the proper functioning of the equipment after erection and commissioning.
- The Bidder shall retrieve the equipment/ materials from stores and transport the same to erection site.
- The Bidder shall unpack and do visual checking against physical damages to the equipment/cases, clean equipment before start of erection. Damage/ shortage, if any, shall be reported to the Employer/ Consultant and shall be rectified/replaced expeditiously, so as not to upset the erection and commissioning schedule.
- The Bidder shall provide all necessary erection equipment and tools & tackles including material handling equipment, cranes, compressors and other equipment and instruments and consumables, all commissioning equipment and instruments, welding equipment, winches, alignment tools, precision levels, etc., which may be required for carrying out the erection and commissioning work efficiently.
- All instruments shall be properly calibrated before use. Unless otherwise specified, the above erection equipment/ materials shall be the property of the Bidder. However, Employer's prior permission shall be required for removal of these erection equipment/ materials from the site. The Bidder/ shall ensure that proper procedure and documentation is maintained at entry gate of Employer's premises for such items as might be carried back by the Bidder after completion of work.
- The Bidder shall provide erection consumables like oxygen and acetylene gas, welding rods, solder lugs, oil, grease, kerosene, cotton waste, etc. required for erection of equipment and steel structures.
- The Bidder shall construct and maintain his own site offices and stores as required for the work and arrange for maintaining in the area placed at the Bidder/Bidding Consortium's disposal in a neat manner.
- The Bidder shall provide his scheme for mobilization with Bar Chart indicating clearly the resources, manpower and machinery proposed to be deployed to ensure timely completion of work and quality of workmanship



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- On request, the Employer may help the Bidder by providing any special handling/construction equipment needed in the interest of work subject to availability and on payment of hire charges and other conditions of Employer. The charges shall be recovered from any bill of the Bidder due immediately thereafter.
- o All safety, health and pollution control measures as required to be adopted as per the Statutory Regulations and the Safety conditions for Bidder/Bidding Consortiums issued along with the tender or otherwise required or implied by statutory regulations or practices shall be strictly followed by the Bidder during the execution of the Contract. The Bidder shall set up a suitable safety organization of his own at site in this regard.
- Labor facilities such as shelter, food shall be arranged by the Bidder/Bidding Consortium. On request drinking water shall be provided by the employer.
- The Employer shall deploy/supply Supervising/operating & maintenance personnel and all raw materials, utilities & services required for commissioning.
- Auxiliary power supply facility for system testing & commissioning, Inverter auxiliary, luminaries, control room, Inverter room, site office and other power consuming areas shall be provided by the Employer
- The results of pre commissioning Test, start-up tests and commissioning report shall be recorded jointly by the Bidder and the TSREDCO. And a cumulative report shall be duly submitted by the Bidder to
- The Bidder shall rectify the defects observed during the Commissioning period promptly.
- Successfully commissioning as be accepted if the complete system remains synchronized with the grid for a period of 48 hours without any disturbance or interruption. During this period the system shall generate power during sunshine hours and export power to the grid and during dark hours shall remain synchronized with the grid. If there is an outage isolation from the grid during this period due to defects in the system, then commissioning period shall start afresh after rectification of the said defect. However if the ambient or the grid parameter are beyond the specified limits if any shall not be considered as stoppage.
- The Commissioning and project completion certificate shall be issued by the Employer subject to relevant conditions.

**14. CONNECTIVITY**

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time.



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Following criteria have been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

<b>Plant Capacity</b>	<b>Connecting voltage</b>
1 kWP & 2KWp	230- Single Phase as per DISCOM rules

- i. The maximum permissible capacity for rooftop shall be 1 MW for a single net metering point.
- ii. Utilities may have voltage levels other than above, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.



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**SECTION - VI**  
**FINANCIAL BID**



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**SECTION-VI**

**FINANCIAL BID GUIDELINES**

- Rates quoted by Bidder will be for destination prices inclusive of taxes, levies, duties, packing, forwarding, freight, insurance, loading unloading, supply, installation, commissioning, connectivity charges etc. and any/ all charges for successful Supply and Installation of the systems at any locations in the State of Telangana.
- The rates quoted by the Bidder will be inclusive of GST or any other taxes applicable to such work. Any escalation in such taxes/ levies during the tenure of the offer/ order will not be paid by the Purchaser. Bidders are advised to take in to consideration any such escalations in the prevailing taxes/levies/duties.
- In no circumstances, escalation in the prices will be entertained.
- Your rates are to be submitted as per the enclosed Performa of schedule of rates.



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**FINANCIAL BID**

(On the official Letterhead of the firm)

(To be submitted in a separate envelope)

“Up-gradation / conversion of already installed off grid solar system to hybrid on grid roof top solar photo voltaic Hybrid power plant at Various Schools of Allapur clusters in Vikarabad District in Telangana State”

Sl.No	Project Category	Capacity in kWp	Quoted price for in Rs./Wp	
			In Figures	In Words
1	Supply installation and commissioning of 1KWp replacing with already existing 1KWp Off grid System with ABCD, DCDB suitable for Hybrid Inverter along with necessary equipment, connections. and net metering facility (excluding net metering charges).	1kWp Each		
2	Supply installation and commissioning of 2KWp replacing with already existing 2KWp Off grid System with ABCD, DCDB suitable for Hybrid Inverter along with necessary equipment, connections. and net metering facility (excluding net metering charges).	2KWp Each		
3	Less Credits: Old off grid 1KWp inverter etc.,	Each		
4	Less Credits: Old off grid 2KWp inverter etc.,	Each		
	Net amount			

**Certified that:**

1. The bidder shall be quoted rate in INR / Wp only up to two decimal places up to two decimal places, incl. 5years CMC period.
2. Above rates are in accordance with specifications & various terms & conditions mentioned in the tender document.
3. The rates are inclusive of all taxes and duties of Govt. of Telangana as well Govt. of India prevailing from time to time.
4. In the event of any discrepancy between the values entered in figures and in words, shall be considered whichever is less.
5. The net meter charges payable to TSSPDCL will be borne by the beneficiary. If vendor pay the amount, same will be reimbursed on submission of receipt with certification of beneficiary.

Authorized Signature:

Name:

Designation:



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**SECTION - VII**

**SAMPLE FORMS & FORMATS FOR BID SUBMISSION**





**Telangana State Renewable Energy Development Corporation Ltd**  
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**Format-I**

**Covering Letter**

**(The covering letter should be on the Letter Head of the Bidding Company)**

**BIDDERS UNDERTAKING COVERING LETTER**

(Letter shall be submitted on Bidder(s) Letter Head)

Ref No:

Date:

To

**The V.C & Managing Director**

**Telangana State Renewable Energy Development Corporation Limited (TSREDCO)**

Corporate Office: D.No. 6-2-910, Visvesvaraya Bhavan,

The Institution of Engineers Building, Khairatabad, Hyderabad - 500 004.

Telangana State, India

**Dear Sir,**

Sub: Up-gradation / conversion of already installed off grid solar system to hybrid on grid roof top solar photo voltaic Hybrid power plant at Various Schools at Allapur clusters of Vikarabad District in Telangana State- reg.

**Tender Reference: TSREDCO/SE/SPV/UPG- ALLAPUR C LUSTER/2021-22, dt:04.08.2021**

\*\*\*\*

1. We have examined the Tender for Supply, Installation and Commissioning of Hybrid Solar Power plants as specified in the Tender. We undertake to meet the requirements and services as required and as set out in the Tender document.
2. We attach our Technical Bid and Financial Bid in separate sealed covers as required by the Tender both of which together constitute our proposal, in full conformity with the said Tender.
3. We have read the provisions of Tender and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our response shall not be given effect to.
4. We undertake, if our Bid is accepted, to adhere to the requirements as specified in the Tender or such modified plan as may subsequently be agreed.
5. We agree to unconditionally accept all the terms and conditions set out in the Tender document and also agree to abide by this Bid response for a period as mentioned in the Tender from the date fixed for bid opening and it shall remain binding upon us with full force and virtue, until within this period a formal contract is prepared and executed, this Bid response,



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together with your written acceptance thereof in your notification of empanelment, shall constitute a binding contract between us and TSREDCO.

6. We affirm that the information contained in the Technical Bid or any part thereof, including its schedules, and other documents, etc., delivered or to be delivered to TSREDCO is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead TSREDCO as to any material fact.

7. We also agree that you reserve the right in absolute sense to reject all or any of the products/ service specified in the bid response without assigning any reason whatsoever.

8. It is hereby confirmed that I/We are entitled to act on behalf of our company/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

9. We agree to use only indigenous PV modules in this project.

10. We also declare that our Company/Organization is not blacklisted by any of the State or Central Government and organizations of the State or Central Government.

11. We undertake to use the BOS components other than PV Modules and Solar grid tie Inverters as per the standards stipulated.

Signature of the authorized person:

Name of the authorized person:

Designation:

Name and Address of Bidder

Stamp of bidder



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**CERTIFICATE AS TO AUTHORISED SIGNATORIES**

I, certify that I am (Name) ..... (Designation) ....., and that (Name)..... who signed the above Bid has been duly authorized to sign the same on behalf of our Organization.

Date:

Signature:

Seal:



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**FORMAT FOR BID SECURITY**

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Ref. \_\_\_\_\_

Bank Guarantee No. \_\_\_\_\_

Date: \_\_\_\_\_

In consideration of the -----[Insert name of the Bidder] (hereinafter referred to as 'Bidder') submitting the response to Tender inter alia for selection of the Project under CAPEX route of the capacity of \_\_\_\_ kWp in the Telangana. State for the districts as indicated in Tender) in response to the Tender No. \_\_\_\_\_ dated \_\_\_\_ issued by Telangana State Renewable Energy Development Corporation Limited (hereinafter referred to as TSREDCO) and TSREDCO considering such response to the Tender of .....[insert the name of the Bidder] as per the terms of the Tender, the \_\_\_\_\_ [insert name & address of bank] hereby agrees unequivocally, irrevocably and unconditionally to pay to TSREDCO at [Insert Name of the Place from the address of TSREDCO] forthwith on demand in writing from TSREDCO or any Officer authorized by it in this behalf, any amount up to and not exceeding Rupees ----- only, on behalf of M/s. \_\_\_\_\_ [Insert name of the Bidder]

This guarantee shall be valid and binding on this Bank up to and including \_\_\_\_\_ [insert date of validity in accordance with condition of this Tender] and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ only). Our Guarantee shall remain in force until \_\_\_\_\_. TSREDCO shall be entitled to invoke this Guarantee till \_\_\_\_\_ [Insert date which is 30 days after the date in the preceding sentence].

The Guarantor Bank hereby agrees and acknowledges that the TSREDCO shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by TSREDCO, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to TSREDCO.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by ----- [Insert name of the Bidder] and/or any other person. The Guarantor Bank shall not require TSREDCO to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against TSREDCO in respect of any payment made hereunder.



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This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Delhi shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly TSREDCO shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the Bidder, to make any claim against or any demand on the Bidder or to give any notice to the Bidder or to enforce any security held by TSREDCO or to exercise, levy or enforce any distress, diligence or other process against the Bidder.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ only) and it shall remain in force until \_\_\_\_\_ [Date to be inserted on the basis condition of this Tender] with an additional claim period of thirty (30) days thereafter. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if TSREDCO serves upon us a written claim or demand.

Signature \_\_\_\_\_

Name \_\_\_\_\_

Power of Attorney No. \_\_\_\_\_

For \_\_\_\_\_ [Insert Name of the Bank] \_\_\_\_\_ Banker's Stamp and Full Address.

Dated this \_\_\_\_ day of \_\_\_\_, 20\_\_



**POWER OF ATTORNEY**

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

(a) Power of Attorney to be provided by the Bidding Company in favour of its representative as evidence of authorized signatory's authority.

Know all men by these presents, We .....

(name and address of the registered office of the Bidding Company as applicable) do hereby constitute, appoint and authorize Mr./Ms. .... (name& residential

address) who is presently employed with us and holding the position of ..... as our true and lawful attorney, to do in our name and on

our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for implementation of Hybrid Roof top solar PV scheme in the State\_\_\_ in response to the NIT No .....,dated ..... issued by Telangana State Renewable Energy Development Corporation Ltd, (TSREDCO), including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the TSREDCO may require us to submit. The aforesaid Attorney is further authorized for making representations to the TSREDCO and providing information / responses to TSREDCO representing us in all matters before TSREDCO, and generally dealing with TSREDCO in all matters in connection with Bid till the completion of the bidding process as per the terms of the above mentioned NIT.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the NIT.

Signed by the within named

..... (Insert the name of the executant company)

through the hand of

Mr. ....

duly authorized by the Board to issue such Power of Attorney

Dated this ..... day of .....

Accepted

.....

Signature of Attorney



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(Name, designation and address of the Attorney)

Attested

.....

(Signature of the executant)

(Name, designation and address of the executant)

.....

Signature and stamp of Notary of the place of execution

Common seal of ..... has been affixed in my/our presence pursuant to Board of Director's Resolution dated.....

**WITNESS**

1. ....

(Signature)

Name.....

Designation .....

2. ....

(Signature)

Name.....

Designation .....

Notes:

The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.

The person authorized under this Power of Attorney, in the case of the Bidding Company / Lead Member being a public company, or a private company which is a subsidiary of a public company, in terms of the Companies Act, 1956, with a paid up share capital of more than Rupees Five crores, should be the Managing Director / whole time director/manager appointed under section 269 of the Companies Act, 1956. In all other cases the person authorized should be a director duly authorized by a board resolution duly passed by the Company.

Also, wherever required, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).



**OPERATION AND MAINTENANCE GUIDELINES OF HYBRID SOLAR PV PLANTS**

1. Periodic checks of the PCUs and BoS shall be carried out as a part of routine preventive and breakdown maintenance.
2. Immediate replacement of Invertors/PCUs and other related equipment as and when required.
3. All the equipment testing instrument required for Testing, Commissioning and O&M for the healthy operation of the Plant shall be maintained by the Bidder. The testing equipments must be calibrated once every 2 years from NABL accredited labs and the certificate of calibration must be kept for reference as required.
4. If negligence/ mal-operation on part of the Bidder's operator results in failure of equipment, such equipment should be repaired/ replaced by the Bidder free of cost.
5. If any jobs covered in O&M Scope as per TENDER are not carried out by the contractor/ Bidders during the O&M period, the Engineer-In-Charge shall take appropriate action as deemed fit.
6. TSREDCO reserves the right to make surprise checks/ inspection visits at its own or through authorized representative to verify the O&M activities being carried out by the Bidder. Failure to adhere to above guidelines will result in penal action including debaring from participation in next tender.

**Quality Certification, Standards and Testing for Grid-connected Rooftop Solar PV Systems/Power Plants**

Quality certification and standards for Hybrid inverters must conform to the relevant standards and certifications as per IEC Standards in vogue





**PROJECT REPORT FORMAT**

**Format for Summary Project Report for  
Hybrid Rooftop and Small SPV Power Plants**

1. Name of Bidder
2. Tender no.
3. Project details (Site location & Address)
4. Brief about the Hybrid inverter
5. Details of the beneficiary
6. Specifications of the Components and Bill of Material/ Quantities

Sl. no	Component	Specifications	Quantity	Make
A	Solar PV module			
1	Grid Tie inverter (Type and Capacity)			
2	Aggregate Inverter capacity (kVA)			
3	AC Distribution Board DC Distribution Board			
4	Online monitoring system			
5	Any other component			

7. Respective drawings for layout, electrical wiring connections, earthing, components etc.
8. Connectivity details with grid and metering arrangement (with sketch diagram)
9. Copy of electricity bill of the beneficiary and consumer number
10. Any other information
11. Documentary proof regarding beneficiary type



**Telangana State Renewable Energy Development Corporation Ltd**  
Tender Notice. No. TSREDCO/SE/SPV/UPG- ALLAPUR C LUSTER/2021-22

**BIDDER INFORMATION**

**(In technical bid)**

1	Name of the organization		
2	Year of establishment		
3	Complete postal address		
4	Name & Designation of Authorized person		
5	Phone No.'s		
6	Fax No.		
7	Email		
8	Nature of the firm (Proprietary/partnership/etc...)		
9	<b>Bank Details of the Agency:</b>		
	Bank Name		
	Bank Address		
	Bank Account Number		
	IFSC Code		
10	PAN No.		
11	TIN No.		
12	Goods and Service Tax Registration No.		
13	Total No. of branch offices in Telangana		
14	Bid Document Fee (Non refundable)	Amount Rs. : UTR No. : UTR Date :	
15	BID SECURITY DEPOSIT	Amount Rs. : UTR No. : UTR Date :	
16	Details of certificates enclosed.		



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IN COVER 'A'

**Forms**

Turn over details of item/product - **2018- 19 to 2020-21**

S.No	Solution	Amount (Rs in Lakhs)

List of Major Customers - 2018- 19 to 2020-2021

S. No	Customer Full Address	Details of Supplies made	Turn Over (Rs. In Lakhs)



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**CHECK LIST**

**IMPORTANT:**

The Bidder must ensure that the following details in the check list are furnished along with the bid document. The bidder must also carefully go through all the contents of the BID Document and any additional information/documents, required more than the items listed in the check list below, also shall have to be furnished. Non-furnishing of any required information/document as per the Tender Document will lead to rejection of the bid. **(in the following order only).**

S.No	Particulars	Yes / No	Pg. No.	Name of the File uploaded
1	Tender Document Fee of Rs.11,800/- through Online Mode to M/s TSREDCO, Account No: 30242010095314, Canara Bank, Hyderabad.			
2	Bid Security of Rs.75,000/-(on line mode/BG) drawn from any Nationalised/ Scheduled Bank			
3	Bidder Information Sheet			
4	Tender document, duly signed and stamped in token of accepted all the terms and conditions of the tender schedule.			
5	Registration Certificate (firm registration)			
6	Copy of PAN & GST			
7	<b>Valid Registration with TSREDCO</b>			
8	The firms are having the solar GCRT system experience of minimum 40KWp cumulative capacity in field of OFF grid and Grid Connected Solar PV systems installed at government buildings in any one (1) FY from the last 3 Years (i.e. FY 2018-19, 2019-20 and 2020-21)			
9	The firms are having the Turnover not less than 1Cr, in any one financial year during the last 3 financial years.			
10	List of present clients with contact address & telephone numbers along with work orders & latest performance certificates of each capacity/order			
11	Power of Attorney, wherever applicable			
12	The OEM should have service center in the state of Telangana and service centers address, engineers name and contact number should be furnished			
13	Any other information/documents that are required in the bid document.			

**NOTE: All pages of the bid documents must be serially numbered and signed.**

**\*\*\*End\*\*\***